# Adriana ȚĂPUŞ

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#### Education

**Habilitation (HDR), Computer Science** – Sorbonne University, France. July 2011. Committee: Prof. Raja Chatila (ISIR, France), Dr. Adrian Stoica (NASA-JPL, USA) and Prof. François Michaud (University of Sherbrooke, Canada).

**Ph.D, Computer Science** – Mobile Robotics, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. October 2005. Thesis advisor: Prof. Roland Siegwart. Thesis Committee: Prof. Roland Siegwart, Prof. Dario Floreano, Prof. Raja Chatila and Prof. Pierre Bessière.

**M.S., Computer Science**, Joseph Fourier University, Grenoble, France. July 2002. Advisor: Prof. Olivier Aycard.

**Engineer in Computer Science**, Politehnica University of Bucharest, Bucharest, Romania. September 2003 (September 1998 - September 2003; transferred to Joseph Fourier University in September 1999).

**B.S. with Honors, Computer Science**, Joseph Fourier University, Grenoble, France. July 2001.

## Research Experience

September 2019 – Present: Director of the Doctoral School of Institut Polytechnique de Paris (IP Paris), France

October 2014 – September 2019: Director of the Interfaces Doctoral School at University Paris Saclay (UPSaY), France

March 2012 – Present: *Full Professor*, Computer Science and System Engineering Department, École Nationale Supérieure de Techniques Avancées (ENSTA Paris), France.

July 2011 – March 2013: Associate Professor (Tenured – French Habilitation - HDR), Computer Science and System Engineering Department, École Nationale Supérieure de Techniques Avancées (ENSTA ParisTech), France.

May 2009 – Present: *Adjunct Professor*, Pierre and Marie Curie University (UPMC), France.

May 2009 – July 2011: Associate Professor, Computer Science and System Engineering Department, École Nationale Supérieure de Techniques Avancées (ENSTA - ParisTech), France.

May 2009 – January 2011: *Research Associate*, Institute for Robotics and Intelligent Systems (IRIS), Pierre and Marie Curie University (UPMC), France.

December 2007 – May 2009: *Postdoctoral Research Associate*, University of Southern California, Robotics Research Laboratory/Interaction Lab, USA.

December 2005 – December 2007: WiSE Postdoctoral Research Fellow, University of Southern California, Robotics Research Laboratory/Interaction Lab, USA. Advisor: Prof. Maja Matarić.

Developed new approaches for Human-Robot Interaction (HRI), especially for Socially Assistive Applications (i.e., for the elderly and post-stroke patients).

May 2006 – September 2006: *External Technical Advisor*, DARPA Urban Grand Challenge, California Institute of Technology (CALTECH) team, USA.

September 2002 – October 2005: Graduate Research Assistant, Ecole Polytechnique Fédérale de Lausanne (EPFL), Autonomous Systems Lab, Switzerland. Supervisor: Prof. Roland Siegwart.

Developed a new methodology for topological mobile robots navigation based on a new paradigm: "fingerprint" of places, used as an approach to solve the localization, mapping, and SLAM problems. Involved in the European project BIBA (Bayesian Inspired Brain and Artifacts).

# Teaching Experience

October-December 2022: Course on Social Robotics (30h), 3<sup>rd</sup> year at Master 2 on Virtual & Augmented Reality (VAR) IP Paris, France.

September – November 2022: Course on Machine Learning for Robotics (24h), 3<sup>rd</sup> year at ENSTA-Paris, France.

April 2022: ERASMUS Course on Trends in Human-Robot Interaction (22h), Master at University Politehnica of Bucharest, Romania.

November-December 2021: Course on Social Robotics (30h), 3<sup>rd</sup> year at Master 2 on Virtual & Augmented Reality (VAR) IP Paris, France.

September – November 2021: Course on Machine Learning for Robotics (24h), 3<sup>rd</sup> year at ENSTA-Paris, France.

November 2020: Course on Social Robotics (30h), 3<sup>rd</sup> year at Master 2 on Virtual & Augmented Reality (VAR) IP Paris, France.

September – November 2020: Course on Machine Learning for Robotics (24h), 3<sup>rd</sup> year at ENSTA-Paris, France.

September – November 2019: Course on Machine Learning for Robotics (24h), 3<sup>rd</sup> year at ENSTA-Paris, France.

September 2014 – August 2018: Responsible Pôle ISC –  $3^{rd}$  Year, ENSTA-ParisTech, France

September – November 2018: Course on Machine Learning for Robotics (24h), 3<sup>rd</sup> year at ENSTA-ParisTech, France.

October 2018: Course on Mobile Robot Localization and Navigation (16h), Master in Advanced Systems and Robotics, UPMC, France.

September – November 2017: Course on Machine Learning for Robotics (24h), 3<sup>rd</sup> year at ENSTA-ParisTech, France.

October 2017: Course on Mobile Robot Localization and Navigation (16h), Master in Advanced Systems and Robotics, UPMC, France.

September – November 2016: Course on Machine Learning for Robotics (24h), 3<sup>rd</sup> year at ENSTA-ParisTech, France.

October 2016: Course on Mobile Robot Localization and Navigation (16h), Master in Advanced Systems and Robotics, UPMC, France.

April 2016: ERASMUS Course on Trends in Human-Robot Interaction (22h), Master at University Politehnica of Bucharest, Romania.

October – November 2015: Course on Mobile Robot Localization and Navigation (16h), Master in Advanced Systems and Robotics, UPMC, France.

September – November 2015: Course on Companion Robots: Concepts and Techniques (16h), 3<sup>rd</sup> year at ENSTA-ParisTech, France.

April 2015: ERASMUS Course on Robotics (20h), Master at University Politehnica of Bucharest, Romania.

December 2014: Course on Dependability and HMI applied to Electrical Vehicles (4h), Master in Electrical Vehicle (MVE) at ENSTA-ParisTech, France.

November 2014: Course on Mobile Robot Localization and Navigation (16h), Master in Advanced Systems and Robotics, UPMC, France.

September – November 2014: Course on Companion Robots: Concepts and Techniques (16h), 3<sup>rd</sup> year at ENSTA-ParisTech, France.

April 2014: ERASMUS Course on Trends in Human-Robot Interaction (20h), Master at University Politehnica of Bucharest, Romania.

October – December 2013: Course on *Companion Robots: Concepts and Techniques* (16h), 3<sup>rd</sup> year at ENSTA-ParisTech, France.

October - December 2013: Course on *Mobile Robot Localization and Navigation (16h)*, Master in Advanced Systems and Robotics, UPMC, France.

December 2012: Course on Dependability and HMI applied to Electrical Vehicles (4h), Master in Electrical Vehicle (MVE) at ENSTA-ParisTech, France.

October – December 2012: Course on *Companion Robots: Concepts and Techniques* (12h), 3<sup>rd</sup> year at ENSTA-ParisTech, France.

October - December 2012: Course on *Mobile Robot Localization and Navigation (16h)*, Master in Advanced Systems and Robotics, UPMC, France.

April 2012: ERASMUS Course on *Trends in Human-Robot Interaction (15h)*, 2<sup>nd</sup> and 3<sup>rd</sup> year at University Politehnica of Bucharest, Romania.

November 2011: Course on *Companion Robots: Concepts and Techniques (12h)*, 3<sup>rd</sup> year at ENSTA-ParisTech, France.

November 2011: Course on *Mobile Robot Localization and Navigation (4h)*, Master in Advanced Systems and Robotics, UPMC, France.

May 2011: ERASMUS Course on *Trends in Human-Robot Interaction (18h)*, 2<sup>nd</sup> and 3<sup>rd</sup> year at University Politehnica of Bucharest, Romania.

January 2011: Course on *Companion Robots: Concepts and Techniques (8h)*, 3<sup>rd</sup> year at ENSTA-ParisTech, France.

November 2010: Course on *Mobile Robot Localization and Navigation (4h)*, Master in Advanced Systems and Robotics, UPMC, France.

January 2010: Course on *Companion Robots: Concepts and Techniques (4h)*, 3<sup>rd</sup> year at ENSTA-ParisTech, France.

December 2009: Course on *Mobile Robot Localization and Navigation (4h)*, Master in Advanced Systems and Robotics, UPMC, France.

September 2009 – October 2009: Course on *Human-Robot Interaction for Assistive Applications (30h)*, Master in Mechatronic Systems for Rehabilitation, UPMC, France.

March 2004 – July 2004: *Teaching Assistant for Computing Systems Laboratory (48h)*, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. Prof. Yves Piguet. Graded laboratory work. Involved in weekly meetings to advise on designing and implementing projects with Khepera robots and helped students prepare presentations and project reports (class of 30 students).

March 2003 – July 2003: *Teaching Assistant for Computing Systems Laboratory (48h)*, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. Prof. Yves Piguet. See above.

December 2002/2003/2004: *Teaching Assistant for Mobile Robots Laboratory (24h)*, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. Prof. Roland Siegwart.

Recitation hours. Prepared material mainly regarding POMDP (Partially Observable Markov Decision Processes), topological navigation and features extraction (class of 54 students).

# Honors and Awards

2022	•	Knight of the Order of Academic Palms 2022 (Chevalier des Palmes Académiques)
	•	Best Late Break Report, 2 <sup>nd</sup> Prize, HRI 2022
2019		Best Interactive Session Poster Award IEEE RO-MAN 2019
	•	Outstanding Paper Award ICCAS 2019
	•	Recognition of Service Award in Appreciation for Contributions to ACM (General Chair HRI 2019)
2018		
	•	Finalist Best Paper Award in Cognitive Robotics ICRA 2018 Finalist Best Paper Award IV 2018
	•	Excellent Oral Presentation Award ICMCE 2018
	•	Recognition of Service Award in Appreciation for Contributions to ACM (Program Chair HRI 2018)
2017		IEEE Commuter Society Contificate of Ammonistics for Droomer Chair
2016	•	IEEE Computer Society Certificate of Appreciation for Program Chair IRC 2017
2016	•	Award "25 women in robotics- 2016" - Robohub
	•	Finalist Best Student Paper Award FeDeV 2016
2015	•	Finalist Best Research Paper Award Handiversité 2016
2015	•	Best Student Paper Award FeDeV 2015
2013	•	Finalist JTCF Novel Technology Paper Award IROS 2015
	•	Finalist Best Paper Award CHI 2015
2013	•	Best Paper Award RAAD 2015
2012	•	Springer Outstanding Best Poster Paper Award Runner-Up CTS 2013
2010	•	Best Paper Award INCOM 2012
	•	Romanian Academy Award "Tudor Tanasescu" for the contributions in assistive robotics
2009	•	USC Women in Science and Engineering (WiSE) Travel Award
2008	_	LISC Woman in Science and Engineering (WiSE) Travel Assert
	•	USC Women in Science and Engineering (WiSE) Travel Award NSF Human-Robot Interaction Pioneers Workshop Travel Award

- USC Women in Science and Engineering (WiSE) Postdoctoral Fellowship
- AAAI Spring Symposia Travel Award
- USC Women in Science and Engineering (WiSE) Travel Award
- NSF Human-Robot Interaction Pioneers Workshop Travel Award

2006

- USC Women in Science and Engineering (WiSE) Postdoctoral Fellowship
- USC Women in Science and Engineering (WiSE) Travel Award
- NSF Human-Robot Interaction Young Researchers Workshop Travel Award

2005

• USC Women in Science and Engineering (WiSE) Postdoctoral Fellowship

1998-2003

• Romanian Governmental Merit-Based Fellowship

1999

• Socrates-Erasmus Scholarship awarded to outstanding Politehnica University of Bucharest students.

## *Publications (h-index=32)*

#### **Refereed Journal Articles**

- 1. Yu, C., Shangguan, Z., Zhang, H., Hei, X. and **Tapus**, A. (2022) "RS3: Robot Speech-to-Face Synthesis and Synchronization Model", International Journal on Social Robotics (IJSR), Special Issue on Human-like Behavior and Cognition in Robots (under review)
- 2. Shangguan,, Z. and Tapus, A. (2022) "Driving Style Analysis and Vehicle Accident Risk Prediction Model", Pattern Recognition Letters (under review)
- **3.** Yu, C. and **Tapus**, **A.** (2022) "Long-life Emotion Recognition for Social Robot with Human in the Loop", Autonomous Robots (under review)
- **4.** Agrigoroaie, R., and **Tapus**, **A.** (2022) "Impact of Insomnia and User Profile on Cognitive Performance", Computers in Human Behavior (under review)
- **5.** Melman, T., **Tapus**, **A.**, Jublot, M., Mouton, X., Abbink, D., de Winter, J., (2022) "Do sport modes cause behavioral adaptation?", Transportation Research Part F: Traffic Psychology and Behaviour, Volume 90, October 2022, Pages 58-69, https://doi.org/10.1016/j.trf.2022.07.017
- 6. Melman, T., Abbink, D., Mouton, X., **Tapus**, A., de Winter, J., (2021) "Predicting fuel consumption: A multivariate and location-specific analysis of 4617 laps driven on a test track", in Transportation Research Part D: Transport

- and Environment (Impact Factor = 4.05), March 2021 (https://www.sciencedirect.com/science/article/pii/S1361920920308129)
- 7. Liu, C., Gao, B., Yu, C., and Tapus, A. (2021) "Self-protective motion planning for mobile manipulators in a dynamic door-closing workspace", Industrial Robot, Vol. 48 No. 6, pp. 803-811. https://doi.org/10.1108/IR-02-2021-0025
- **8.** Liu, C., Yu, C., Gao, B., Shah, S., and Tapus, A (2021) "Towards a balancing safety against performance approach in human-robot co-manipulation for doorclosing emergencies.", Complex and Intelligent Systems, 8, 2859–2871 (2021) https://doi.org/10.1007/s40747-021-00420-y
- **9.** Aly, A. and **Tapus**, **A.** (2020) "On Designing Expressive Robot Behavior: The Effect of Affective Cues on Interaction", in Springer Nature SN Computer Science, 1:314, https://doi.org/10.1007/s42979-020-00263-3
- 10. Agrigoroaie, R., Ciocirlan, D.S., and **Tapus**, A. (2020) "In the Wild HRI Scenario: Influence of Regulatory Focus Theory", Frontiers in Robotics, <a href="https://doi.org/10.3389/frobt.2020.00058">https://doi.org/10.3389/frobt.2020.00058</a> (Impact Factor: 3.36)
- **11.** Staffa, M., Rossi, S., **Tapus, A.,** and Khamassi, M. (2020) "Editorial: Special Issue on Behavior Adaptation, Interaction, and Artificial Perception for Assistive Robotics", International Journal of Social Robotics, Springer Nature, <a href="https://doi.org/10.1007/s12369-020-00655-8">https://doi.org/10.1007/s12369-020-00655-8</a>
- 12. Serhan, C., Fernandez-Carmona, M., Agrigoroaie, R., Pages, J., Ferland, F. and Zhao, F., Yue, S., Bellotto, N., and **Tapus**, A. (2020) "ENRICHME: Perception and Interaction of an Assistive Robot for the Elderly at Home", International Journal on Social Robotics (IJSR) (Accepted, in print) (Impact Factor: 2.315)
- 13. Kissai, M., Monsuez, B., Martinez, D., and Tapus, A., (2019) "Optimal Coordination of Chassis Systems in Simultaneous Operations," SAE Int. J. of Connected and Automated Vehicles. Special Issue on Revisiting Chassis and Powertrain Design for Automated Vehicles, 2019, JCAV-2019-0018 (Accepted, in print)
- **14.** Melman, T., de Winter, J., Mouton, X., **Tapus, A.,** Abbink, D. (2019) "How do driving modes affect the vehicle's dynamic behaviour? Comparing Renault's Multi-Sense Sport and Comfort modes during on-road naturalistic driving", in Vehicle System Dynamics, DOI: 10.1080/00423114.2019.1693049
- **15.** Kissai, M., Monsuez, B., Mouton, X., Martinez, D., **Tapus**, **A.**,(2019) "Adaptive Robust Vehicle Motion Control for Future Over-Actuated Vehicles", in Machines 2019, 7(2), 26; <a href="https://doi.org/10.3390/machines7020026">https://doi.org/10.3390/machines7020026</a> (Impact Factor: 1.63)
- **16.** Agrigoroaie, R., and **Tapus**, **A.** (2019) "Analysis of the Variation of Physiological Parameters based on User's Personality, Sensory Profile, and Morningness-eveningness Type in a Human-Robot Interaction", International

- Journal on Social Robotics (IJSR), DOI: 10.1007/s12369-019-00532-z (Impact Factor: 2.315)
- 17. Kissai, M., Monsuez, B., **Tapus**, A., Martinez, D. (2018) "Control Allocation of Active Rear Steering and Vehicle Dynamics Control Using a New Tire Model", In International Journal of Mechanical Engineering and Robotics Research (IJMERR), Volume 7, N° 6, November 2018
- **18. Tapus, A.,** Bandera, A., Vazquez-Martin, R. and Calderita L. V. (2018) "Perceiving the person and their interactions with the others for social robotics A review", Pattern Recognition Letters, Available online 6 March 2018 (10.1016/j.patrec.2018.03.006) (Impact Factor: 1.995)
- **19.** Rossi, S., Ferland, F., **Tapus, A.** (2017) "User Profiling and Behavioral Adaptation for HRI: a Survey", Pattern Recognition Letters (Impact Factor: 1.995)
- **20. Tapus, A.** (2016) "Ethical Aspects of Cyber-Physical Systems", European Parliament Think Tank, June 2016
- **21.** Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., **Tapus, A.** (2016), "Exploratory Study for Customized Human-Machine Interaction for People Suffering of ASD", In Autonomous Robots, Special Issue on Assistive and Rehabilitation Robotics, May 2016 (impact factor: 2.07)
- **22.** Aly, A., and **Tapus**, **A**. (2015) "An Integrated Model for Generating a Combined Verbal and Non-Verbal Behavior Adapted to Personality Dimensions in Human-Robot Interaction", Autonomous Robots, July 2015 (impact factor: 2.07)
- **23.** Mozos, O., M., Galindo, C., and **Tapus**, **A.** (2015) "Computer-Based Intelligent Technologies for Improving the Quality of Life", Guest Editorial, IEEE Journal of Biomedical and Health Informatics, 2015 (impact factor: 1.98)
- **24.** Dang, T-H. H., and **Tapus**, **A.** (2015) "Stress Game The Role of Motivational Robotic Assistance in Reducing User's Task Stress", International Journal of Social Robotics, 2015 (impact factor: 1.207)
- **25.** Ramaswamy A., Monsuez, B., and **Tapus**, **A**. (2014) "Solution Space Modeling for Robotic Systems", JOSER, 5(1), pp. 89-96, ISSN: 2035-3928.
- **26. Tapus, A.** (2013) " Can We Trust Closed-Skull Socially Assistive Robots?", *IEEE Transactions on Autonomous Mental Development.* Commentary on John Weng: "Modeling AMD and Its Application to Assistive Robotics: Closed Skull or Not?, May 2013.
- **27. Tapus, A.**, Peca, A., Aly, A., Pop, C., Jisa, L., Pintea, S., Rusu, A., and David, D. "Exploratory Study: Children's with Autism Awareness of Being Imitated by Nao Robot", *Interaction Studies*, 13(3), 2012

- **28.** Tapus, A. (2012) "Is Developmental Robotics a Solution for Socially Assistive Robotics?", *IEEE Transactions on Autonomous Mental Development*. Commentary on Rohlfing, K. J. & Wrede, B.: "What Novel Scientific and Technological Questions Developmental Robotics Bring to HRI? Are we Ready for a Loop?", May 2012.
- **29.** Ramisa, A., **Tapus**, **A**., Lopez de Mantaras R., and Toledo R. (2009) "Robust Mobile Robot Localization using Panoramic Vision and Combinations of Local Feature Region Detectors", *Autonomous Robots*, *Special Issue: Characterizing Mobile Robot Localization and Mapping*, 27(4), pp 373-385, November 2009.
- **30. Tapus**, A., Tapus, C. and Matarić, M., J. (2008) "User-Robot Personality Matching and Robot Behavior Adaptation for Post-Stroke Rehabilitation Therapy", *Intelligent Service Robotics*, *Special Issue on Multidisciplinary Collaboration for Socially Assistive Robotics*, 1(2):169-183, April, 2008.
- **31. Tapus, A.**, Matarić, M., J., and Scassellati, B. (2007) "The Grand Challenges in Socially Assistive Robotics", *IEEE Robotics and Automation Magazine (RAM)*, Special Issue on Grand Challenges in Robotics, Vol. 14, No. 1, March, 2007.
- **32. Tapus, A.** and Matarić, M., J. (2006) "Towards Socially Assistive Robotics", *International Journal of the Robotics Society of Japan (JRSJ)*, 24(5), pp. 576-578, July, 2006.

#### **Refereed Books**

**33. Tapus, A.,** Andre, E., Martin, J.-C., <u>Ferland</u>, F., Ammi, M. (Eds.) (2015) "Social Robotics", 7th International Conference, ICSR 2015, Paris, France, October 26-30, 2015, Proceedings Series: Lecture Notes in Computer Science, Vol. 9388, Subseries: Lecture Notes in Artificial Intelligence

#### **Refereed Book Chapters**

- **34. Tapus**, A., Chevalier, P., Martin, J.C., Isableu, B., Bazile, C. (2018) "Impact des préférences sensorielles chez des individus avec autisme dans une interaction homme-robot", in "Robots, de nouveaux partenaires de soins psychiques", de Serge Tisseron et Frédéric Tordo, editions Eres, EAN: 9782749258706, May 2018
- **35.** Ramaswamy A., Monsuez, B., and **Tapus**, **A.** (2018) "Formal Specification of Robotic Architectures for Experimental Robotics", In Springer Cosmos Series Book on Metrics of sensory motor integration in robots and animals.
- **36.** Ferland, F., Agrigoroaie, R., and **Tapus**, **A.** (2017) "Assistive humanoid robots for the elderly with MCI", In Handbook for Robotics, Editors Ute Leonards
- **37.** Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., **Tapus, A.** (2016) "Proprioceptive and Kinematic Profiles for Customized Human-Robot

- Interaction for People Suffering from Autism", In Autism Paradigms and Clinical Application, Intech, ISBN 978-953-51-5013-8.
- **38.** Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., **Tapus**, **A.** (2015) "Individuals with Autism: Analysis of the First Interaction with Nao Robot Based on Their Proprioceptive and Kinematic Profiles", In Advances in Robot Design and Intelligent Control Volume 371 of the series Advances in Intelligent Systems and Computing, pp 225-233, 2015
- **39.** Aly, A. and **Tapus**, **A.** (2015) "An Online Fuzzy-Based Approach for Human Emotions Detection: An Overview on the Human Cognitive Model for Multimodal Actions Understanding-Generation", In Intelligent Assistive Robots, Volume 106 of the series Springer Tracts in Advanced Robotics pp 185-212
- 40. Matarić, M. J., **Tapus**, A., Winstein, C., and Eriksson, J. (2012) "Socially Assistive Robotics for Stroke and Mild TBI Rehabilitation", In *Brain Injury and Stroke: Spectrum Effects and Implications*, James Giordano and Patrick Waters (Eds.), 2012, Potomac Institute Press.
- **41.** Aly, A. and **Tapus**, **A.** (2012) "Speech to Head Gesture Mapping in Multimodal Human-Robot Interaction", In *Service Orientation in Holonic and Multi-Agent Manufacturing Control*, Series: Springer Tracts in Studies in Computational Intelligence, Theodor Borangiu; Andre Thomas; Damien Trentesaux (Eds.), Vol. 402, 2012, pp.183-197.
- **42. Tapus**, **A.**, Tapus, C. and Matarić, M., J. (2010) "Long Term Learning and Online Robot Behavior Adaptation for Individuals with Physical and Cognitive Impairments", In *Field and Service Robotics, Results of the 7th International Conference*, Series: Springer Tracts in Advanced Robotics, Kelly, Alonzo; Iagnemma, Karl; Howard, Andrew (Eds.), Vol. 62, pp. 389-401, 2010.
- **43.** Matarić, M. J., **Tapus, A.**, Winstein, C., and Eriksson, J. (2009) "Socially Assistive Robotics for Stroke and Mild TBI Rehabilitation", In *Advanced Technologies in Rehabilitation*, A. Gaggioli, E. Keshner, P. Weiss, and G. Riva, (Eds.), Vol. 145, 2009, IOS Press, pp. 249-262.
- **44. Tapus**, **A.** and Siegwart, R. (2008) "Topological SLAM using Fingerprints of Places", In Pierre Bessière, Roland Siegwart and Christian Laugier, editors, *Bayesian sensory-motor models and programs*, Springer-Verlag, 2008.
- **45. Tapus, A.** and Matarić, M., J. (2006) "User Personality Matching with Hands-Off Robot for Post-Stroke Rehabilitation Therapy", In *Experimental Robotics*, Vol. 39, Springer-Verlag, 2008, pp. 165-175.
- **46.** Bellot, D., Siegwart, R., Bessière, P., **Tapus, A.,** Coué, C. and Diard, J. (2003) "Bayesian Reasoning for Real World Robotics: Basics, Scaling and Example." In Fumiya Iida and Rolf Pfeifer and Luc Steels and Yasuo Kuniyoshi, editors, *Embodied Artificial Intelligence*, Lecture Notes in Computer Science Series, volume 3139, pages 186-201, Springer-Verlag, 2003.

#### **Refereed Conferences Proceedings**

- **47.** Yu, C., Fu, C., Chen, R., and **Tapus**, **A**. (2022) "First Attempt of Gender-free Speech Style Transfer for Genderless Robot", in Human-Robot Interaction Conference, Late Break Report (LBR), March 2022 (Conference A+) (**Best LBR**, **2**<sup>nd</sup> **Prize**)
- **48.** Yu, C., and **Tapus**, **A**. (2020) "SRG3: Speech-driven Robot Gesture Generation with GAN", In Proceedings of International Conference of Control, Automation, Robotics and Vision (ICARCV), 2020, China, October 2020 (Conference A+)
- **49.** Yu, C., and **Tapus**, **A.** (2020) "Multimodal Emotion Recognition with Thermal and RGB-D Cameras for Human-Robot Interaction", In Proceedings of the Human-Robot Interaction Conference 2020, Late Break Report, Oxford, UK, March 2020 (Conference A+)
- **50.** Kissai, M., Monsuez, B., Mouton, X., Martinez, D., and **Tapus, A.** (2020) "Extensible Control Architecture for Optimal Coordination of Chassis Systems," The 11th International Munich Chassis Symposium, CHASSIS.TECH PLUS 2020.
- **51.** Kissai, M., Martinez, D., Monsuez, B., Mouton, X. and **Tapus, A.** (2020) "Optimal Yaw Rate Control for Over-Actuated Vehicles," WCX 2020 SAE World Congress Experience, Detroit, Michigan, USA, 2020.
- **52.** Kissai, M., Mouton, X., Monsuez, B., and **Tapus**, **A.** (2020) Optimization-Based Control Allocation for Driving Braking Torque Vectoring in a Race Car", Submitted to American Control Conference (ACC), Denver, USA
- **53.** Iacob, D. and **Tapus. A.** (2019) "The impact of a robot game partner when studying deception during a card game", In Proceedings of International Conference of Social Robotics (ICSR) 2019, Madrid, Spain, November 2019.
- **54.** Yu, C., and **Tapus. A.** (2019) "Interactive Robot Learning for Multimodal Emotion Recognition", In Proceedings of International Conference of Social Robotics (ICSR) 2019, Madrid, Spain, November 2019.
- **55.** Kissai, M., Mouton, X., Monsuez, B., Martinez, D. and **Tapus**, **A.** (2019) "Robust Control for Over-Actuated Vehicles," The 22st IEEE International Conference on Intelligent Transportation Systems (ITSC2019), Auckland, New Zealand, October 2019.
- **56.** Kissai, M., Mouton, X., Monsuez, B., and **Tapus, A.** (2019) "Extensible Control Architecture for Over-Actuated Vehicles," The 19<sup>th</sup> International Conference on Control, Automation, and Systems (ICCAS), Jeju Island, South Korea, October 2019

- **57.** Iacob, D. and **Tapus**, **A.** (2019) "Detecting deception in HRI using minimally-invasive and noninvasive techniques", In Proceedings of the 28th IEEE International Conference on Robot and Human Interactive Communication (ROMAN) 2018, New Delhi, India, October 2019.
- **58.** Ciocirlan, D., Agrigoroaie, R. and **Tapus**, **A.** (2019) "Human-Robot Team: Effects of Communication in Analyzing Trust", In Proceedings of the 28th IEEE International Conference on Robot and Human Interactive Communication (ROMAN) 2019, India, October 2019.
- **59.** Kissai, M., Monsuez, B., Martinez, D. Mouton, X., and **Tapus, A.** (2019) "Robust Control for Over-Actuated Vehicles," In Proceedings of 2019 IEEE Conference on Control Technology and Applications (CCTA 2019), Hong Kong, China, August 2019.
- **60.** Sorostinean, M. and **Tapus**, **A.** (2018) "Activity Recognition based on RGB-D and Thermal Sensors for Socially Assistive Robots", In Proceedings of International Conference of Control, Automation, Robotics and Vision (ICARCV) 2018, Singapore, November 2018
- **61.** Kissai, M., Mouton, X., Monsuez, B., and **Tapus, A.** (2018) "Importance of Torque Vectoring for Vehicles' High Performance and Safety," In 2018 7th International Conference on Mechatronics and Control Engineering (ICMCE 2018), Amsterdam, November 2018.
- **62.** Agrogororaie, R. and **Tapus. A.** (2018) "Physiological differences depending on task performed in a 5-day interaction scenario designed for the elderly", Submitted to International Conference of Social Robotics (ICSR) 2018, November, China.
- **63.** Kissai, M., Mouton, X., Monsuez, B., Martinez, D. and **Tapus, A.** (2018) "Importance of Vertical Dynamics for Accurate Modelling, Friction Estimation and Vehicle Motion Control," The 21st IEEE International Conference on Intelligent Transportation Systems (ITSC2018), Maui, Hawaii, USA, November 2018.
- **64.** Kissai, M., Mouton, X., Monsuez, B., Martinez, D. and **Tapus, A.** (2018) "A Comprehensive Comparison of Chassis Systems Coordination Approaches," The 18th International Conference on Control, Automation and Systems (ICCAS 2018), PyeongChang, GangWon Province, Korea, October 2018.
- **65.** Kissai, M. Monsuez, B., **Tapus, A.**, Mouton X. and Martinez, D., (2018) "Gain-Scheduled H-infinity for Vehicle High-Level Motion Control," The 6th International Conference on Control, Mechatronics and Automation (ICCMA 2018), Tokyo, October 2018.
- **66.** Agrigoroaie, R., Cruz-Maya, A., and **Tapus**, **A.** (2018) "Oh! I am so sorry!": Understanding User Physiological Variation while Spoiling a Game Task", In

- Proceedings of the 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2018), Madrid, Spain, October 2018
- **67.** Kissai, M., Mouton, X., Monsuez, B., Martinez, D. and **Tapus, A.** (2018) "Complementary Chassis Systems for Ground Vehicles Safety," In Proceedings of the 2nd IEEE Conference on Control Technology and Applications (CCTA 2018), Copenhagen, August 2018
- **68.** Orefice, P.H., Hafez., M., Ammi, M., and **Tapus**, **A**. (2018) "Pressure Variation Study in Human-Human and Human-Robot Handshakes: Impact of the Mood", In Proceedings of the 27th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2018, Tai'an, China, August 2018.
- **69.** Iacob, D.,O, and **Tapus**, **A.** (2018), "First Attempts in Deception Detection in HRI by Using Thermal and RGB-D Cameras", In Proceedings of the 27th IEEE International Conference on Robot and Human Interactive Communication (ROMAN) 2018, Tai'an, China, August 2018.
- **70.** Agrigoroaie, R. and **Tapus**, **A.** (2018) "Physiological Parameters Variation Based on the Sensory Stimuli used by a Robot in a News Reading Task", In Proceedings of the 27th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2018, Tai'an, China, August 2018.
- 71. Agrigoroaie, R. and Tapus, A. (2018) "The Outcome of a Week of Intensive Cognitive Stimulation in an Elderly Care Setup: A Pilot Test", In Proceedings of the 27th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2018, Special Session on "Social Assistive Robotics for Elderly Care" Tai'an, China, August 2018.
- **72.** Cruz-Maya, A. and **Tapus, A.** (2018) "Adapting Robot Behavior using Regulatory Focus Theory and User Physiological and Task-Performance Information", In Proceedings of the 27th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2018, Tai'an, China, August 2018.
- **73.** Kissai, M. Monsuez, B., **Tapus, A.**, Mouton X. and Martinez, D. (2018) "Multi-Behavioural Control Allocation for Over-Actuated Vehicles," In Proceedings of the 14th International Symposium on Advanced Vehicle Control (AVEC'18), Beijing, July 2018.
- **74.** Kissai, M., Mouton, X., Monsuez, B., Martinez, D. and **Tapus, A.** (2018) "Optimizing Vehicle Motion Control for Generating Multiple Sensations," In Proceedings of the 2018 IEEE Intelligent Vehicles Symposium (IV'18), Changshu, Suzhou, China, June 2018.
- 75. Cruz, A. and Tapus, A. (2018) "Negotiating with a robot: Analysis of Regulatory Focus Behavior", In Proceedings of the International Conference of Robotics and Automation (ICRA) 2018, Brisbane, Australia, May 2018, Finalist Best Paper Award (1%)

- **76.** Cruz, A., Agrigoroaie, R. and **Tapus, A.** (2017) "Improving User's Performance by Motivation: Matching Robot Interaction Strategy with User's Regulatory State", In Proceedings of International Conference on Social Robotics (ICSR 2017), Tsukuba, Japan, November 2017
- 77. Agrigoroaie, R. and **Tapus**, A. (2017) "Influence of Robot's Interaction Style on Performance in Stroop Task", In Proceedings of International Conference on Social Robotics (ICSR 2017), Tsukuba, Japan, November 2017
- **78.** Agrigoroaie, A., Ciocarlan, S. D., and **Tapus**, **A.** (2017) "News Application Adaptation based on User Sensory Profile", In Proceedings of International Conference on Social Robotics (ICSR 2017), Tsukuba, Japan, November 2017
- **79.** Agrigoroaie, R. and **Tapus**, **A.** (2017) "Contactless Physiological Data Analysis for User Quality of Life Improving by Using a Humanoid Social Robot", In Proceedings of the 19<sup>th</sup> International Conference on Image Analysis and Processing (ICIAP 2017), Catania, Italy, September 2017
- **80.** Kissai M., Monsuez, B., Martinez, D., and **Tapus, A.** (2017) "Review of Integrated Vehicle Dynamics Control Architectures", In Proceedings of the IEEE European Conference on Social Robotics (ECMR 2017), Paris, France, September 2017.
- **81.** Kissai M., Monsuez, B., **Tapus, A.** and Martinez, D. (2017) "A New Linear Tire Model with Varying Parameters", In Proceedings of the International Conference on Automotive and Vehicle Engineering (ICAVE 2017), Singapore, September 2017.
- **82.** Cruz, A and **Tapus, A.** (2017) "Learning Users' and Personality-Gender Preferences in Close Human-Robot Interaction", In Proceedings of RO-MAN 2017, Lisbon, Portugal, August 2017
- **83.** Ferland, F., and **Tapus**, **A.** (2017) "Crowd Sourcing Approach Behavior Control", In Proceedings of RO-MAN 2017, Lisbon, Portugal, August 2017
- **84.** Ramaswamy A., Monsuez, B., and Tapus, A. (2017) "Using Knowledge-based Engineering Methods in Robotics Software Development", In Proceedings of the The First IEEE International Conference on Robotic Computing, Taichung, Taiwan, April 2017
- 85. Chevalier, P., Martin, J.-C., Isableu, B., Bazile, C., Tapus, A. (2017) "Impact of Sensory Preferences of Children with ASD on Imitation with a Robot ", In Proceedings of HRI 2017 (24% acceptance rate), Vienna, Austria, March 2017
- **86.** Bostan, A., Tapus, N., **Tapus, A.** (2017) "IntelliCane: A Cane System for Individuals with Lower-Limb Mobility and Functional Impairments", In Proceedings of the International Conference on Rehabilitation Robotic (ICRR 2017), Boston, USA, April 2017.
- 87. Orefice, P.H., Hafez., M., Ammi, M., and **Tapus**, A. (2016) "Let's Handshake and I'll Know who You Are: Gender and Personality Discrimination in Human-

- Human and Human-Robot Handshaking Interaction", In Proceedings of the Humanoids International Conference, Cancun, Mexico, November 2016
- **88.** Cruz, A., and **Tapus, A**. (2016) "Teaching Nutrition and Healthy Eating by using Multimedia with a Kompai Robot: Effects of Stress and User's Personality", In Proceedings of the Humanoids International Conference, Cancun, Mexico, November 2016
- **89.** Cruz, A., and **Tapus, A.** (2016) "Influence of user's personality on task execution when reminded by a robot", In Proceedings of International Conference on Social Robotics (ICSR 2016), Kansas City, USA, November 2016
- **90.** Agrigoroaie, R., Ferland, F., and **Tapus**, **A.**, (2016) "The ENRICHME Project: Lessons Learnt from a First Interaction with the Elderly", In Proceedings of International Conference on Social Robotics (ICSR 2016), Kansas City, USA, November 2016
- **91.** Ferland, F. and **Tapus**, **A.**, (2016) "Functional and Non-Functional Expressive Dimensions: Classification of the Expressiveness of Humanoid Robots", In Proceedings of International Conference on Social Robotics (ICSR) 2016, Kansas City, USA, November 2016
- **92.** Amorim, M., Martin., J.-A., Monacelli, E., **Tapus**, **A**. (2016) "What can we learn from the neuroplasticity driven by assistive technologies for motor rehabilitation?", In Proceedings of the Neuromechanics 2016 Symposium, Heidelberg, Germany, October 2016.
- **93.** Chevalier, P., Martin, J.-C., Isableu, B., Bazile, C., Iacob, D., O., **Tapus, A.** (2016) "Joint Attention with a Robot: Impact of Sensory Preferences of Children with Autism", In Proceedings of RO-MAN 2016, New York, USA, August 2016
- **94.** Salatino, C., Gower, V., Ghrissi, M., **Tapus, A.**, Wieczorowska-Tobis, K., Suwalska, A., Barattini, P., Rosso, R., Munaro, G., Bellotto, N., van den Heuvel, H. (2016) "The EnrichMe project: a robotic solution for independence and active aging of elderly people with MCI", In Proceedings of the 15th International Conference on Computers Helping People with Special Needs, Austria, July 2016
- 95. Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., Tapus, A. (2015) "Profilage Visuel et Proprioceptif pour l'Elaboration des Interactions Homme-Robot Adaptées", In Journée "Sciences du Mouvement" (FEDEV 2015), Paris, France, December 2015, Awarded Best Student Paper Award.
- **96.** Sorostinean, M., Ferland, F., and **Tapus, A**. (2015) "Reliable Stress Measurement using Face Temperature Variation with a Thermal Camera in Human-Robot Interaction", In Proceedings of 2015 IEEE-RAS International Conference on Humanoid Robots (Humanoids 2015), Seoul, South-Korea, November 2015

- **97.** Cruz, A., Ferland, F., and **Tapus**, **A.** (2015) "Social Facilitation in a Game-Like Human-Robot Interaction using Synthesized Emotions and Episodic Memory", In Proceedings of International Conference on Social Robotics (ICSR 2015), Paris, France, October 2015
- **98.** Cylkowska-Nowak, M., Tobis, S., Salatino, C., **Tapus, A.**, Suwalska, A. (2015) "The robot in elderly care.In: Psychology and psychiatry, sociology and health care", In Proceedings of SGEM 2015, pp 1007-1014.
- **99.** Ferland, F., and **Tapus**, **A.** (2015) "Functional and Non-Functional Expressive Dimensions: Classification of the expressiveness of the face of humanoid robots", In Proceedings of IROS 2015 Workshop on "Towards Standardized Experiments in HRI", Hamburg, Germany, September-October 2015
- 100. Aly, A., and **Tapus**, A. (2015) "Multimodal Adapted Robot's Behavior Synthesis within a Narrative Human-Robot Interaction", In Proceedings of IROS 2015, Hamburg, Germany, September-October 2015. Finalist JTCF Novel Technology Paper Award.
- 101. Tsalamlal, M.Y., Amorim, M-A., Martin, J. C., **Tapus, A.,** Ammi, M. (2015) "Combining Facial Expression and Haptic Feedback to Perceive Emotion during Human-Robot Interaction", In Proceedings of the 6th International Conference on Affective Computing and Intelligent Interaction (ACII2015), Xi'an, China, September 2015
- 102. Ramaswamy A., Monsuez, B., and **Tapus, A.** (2015) "Architecture Modeling for Experimental Robotics", In Proceedings of the IEEE European Conference on Social Robotics (ECMR 2015), Lincoln, UK, September 2015.
- 103. Chevalier, P., Martin, J.-C., Isableu, B., **Tapus, A.** (2015) "Impact of Personality on the Recognition of Emotion Expressed via Human, Virtual and Robotic Embodiments", In Proceedings of RO-MAN 2015, Japan, August 2015
- **104.** Ferland, F., Cruz, A., **Tapus**, **A.**, (2015) "Adapting an hybrid behavior-based architecture with episodic memory to different humanoid robots", In Proceedings of RO-MAN 2015, Japan, August 2015
- 105. Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., Tapus, A. (2015) "Exploratory Study for Customized Human-Machine Interaction for People Suffering of ASD", In Proceedings of RAAD 2015, Bucharest, Romania, May 2015, Awarded Best Paper Award.
- 106. Tapus, A., Vieru, A.M., Niculescu, R., and Tudose, C. (2015) (2015) "Nao Robot Cognitive Stimulation for the Elderly", In Proceedings of the World Psychiatric Association (WPA), Bucharest, Romania, May 2015
- 107. Chevalier, P., Tapus, A., Martin, J.-C., Bazile, C., Isableu, B., (2015) "Social Personalized Human-Machine Interaction for People with Autism: A close look at Proprioceptive and Visual Orientation Integration", International Meeting for Autism Research, Salt Lake City, USA, May 2015

- 108. Chevalier, P., Tapus, A., Martin, J.-C., Bazile, C., Isableu, B. (2015) "Social Personalized Human-Machine Interaction for People with Autism: Defining User Profiles and First Contact with a Robot", In Proceedings of IEEE Human-Robot Interaction Conference (HRI) Late Break Report, Oregon, USA, March 2015
- 109. Andrist S., Mutlu, B., and Tapus, A. (2015) "Look Like Me: Matching Robot Personality via Gaze to Increase Motivation", CHI 2015, South Korea (23% acceptance rate). Awarded Best Honourable Mention.
- 110. Ammi, M., Demulier, V., Caillou, S., Gaffary, Y., Ballik, Y., Martin, J.-C., and Tapus, A. (2015) "Haptic Human-Robot Affective Interaction in a Handshaking Social Protocol", In Proceedings of IEEE Human-Robot Interaction Conference (HRI), Oregon, USA, March 2015 (25% acceptance rate).
- 111. Ramaswamy A., Monsuez, B., and **Tapus, A.** (2014) "Architecture Modeling and Analysis Language for Designing Robotic Architectures", In Proceedings of the 13th International Conference on Control, Automation, Robotics and Vision (ICARCV), Singapore, December 2014.
- 112. Ramaswamy A., Monsuez, B., and Tapus., A. (2014) "Physiological Signals in Driving Scenario How Heart Rate and Skin Conductance Reveal Different Aspects of Driver's Cognitive Load", In Proceedings of AAAI Spring Symposium on Formal Verification and Modeling in Human-Machine Systems, Palo Alto, USA, March 2014.
- 113. Dang, T.-H. H., and **Tapus**, **A**. (2014) "User model in adjustable control system", In *Proceedings of the OASIS Special Session at International Conference on Physiological Computing Systems (PhyCS2014*), Lisbon, Portugal, January 2014.
- 114. Aly, A., and **Tapus**, A. (2013) "Prosody-Based Adaptive Metaphoric Head and Arm Gestures Synthesis in Human Robot Interaction", In *Proceedings of The 16th International Conference on Advanced Robotics (ICAR)*, Montevideo, Uruguay, Nov 2013.
- 115. Ramaswamy A., Monsuez, B., and **Tapus.**, A. (2013) "Formal Models for Cognitive Systems", In *Proceedings of The 16th International Conference on* Advanced Robotics (ICAR), Montevideo, Uruguay, Nov 2013.
- **116.** Dang, T.-H. H., and **Tapus**, **A.** (2013) "Coping with stress by using social robots as emotion-oriented tools: Potential factors discovered from Stress Game experiment", In Proceedings of the International Conference on Social Robotics (IJSR), Bristol, UK, Oct 2013.
- 117. Dang, T.-H. H., and **Tapus**, A. (2013) "Personality Matching to Generate Empathy in Human-Robot Teamwork", In Proceedings of The 3rd Joint IEEE International Conference on Development and Learning And Epigenetic Robots (ICDL-EPIROB), Osaka, Japan, Aug 2013.

- **118. Tapus, A.** and Vieru, A. (2013) "Robot Cognitive Stimulation for the Elderly", IWINAC 2013, Mallorca, Spain, June 2013
- **119.** Dang, T.-H. H., and **Tapus, A.** (2013) "User model in adjustable control system", In Proceedings of the IEEE International Conference on Collaboration Technologies and Systems (CTS), San Diego, USA, May 2013.
- **120.** Ramaswamy A., Monsuez, B., and **Tapus.**, **A.** (2013) "Reconfigurable Component Architecture for Decision Making in Autonomous Vehicles", In Proceedings of the IEEE International Conference on Collaboration Technologies and Systems (CTS), San Diego, USA, May 2013.
- **121.** Aly, A., and **Tapus**, **A.** (2013) "A Model for Synthesizing a Combined Verbal and NonVerbal Behavior Based on Personality Traits in Human-Robot Interaction", In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI 2013), Tokyo, Japan, March 2013.
- **122.** Aly, A., and **Tapus**, **A.** (2012) "Towards an Online Real Time Fuzzy Modeling for Human Internal States Detection", In Proc. IEEE International Conference on Robotics and Automation (ICARCV), Guangzhou, China, December 2012.
- **123.** Peca, A., **Tapus, A.,** Aly, A., Pop, C., Jisa, L., Pintea, S., Rusu, A., and David, D. (2012) "Exploratory Study: Children's with Autism Awareness of Being Imitated by Nao Robot", In Proceedings of the 1st International Conference on Innovative Technologies for Autism Spectrum Disorders. ASD: Tools, Trends and Testimonials (ITASD), Valencia, Spain, July 2012.
- **124.** Aly, A., and **Tapus, A.** (2012) "An Integrated Model of Speech to Arm Gestures Mapping in Human-Robot Interaction", In Proceedings of the 14th IFAC Symposium on Information Control Problems in Manufacturing (INCOM), Bucharest, Romania, May 2012 (**Best Paper Award**).
- 125. Filliat, D., Battesti, E., Bazeille, S., Duceux, G., Gepperth, A., Harrath, L., Jebari, I., Pereira, R., Tapus, A., Meyer, C., Ieng, S., Benosman, R., Cizeron, E., Mamanna, J.-C., & Pothier, B. (2012) "RGBD object recognition and visual texture classification for indoor semantic mapping", In Proceedings of the 4th IEEE International Conference on Technologies for Practical Robot Applications (TePRA), Boston, MA, USA, April 2012
- **126.** Aly, A., and **Tapus**, **A.** (2011) "Speech to Head Gesture Mapping in Multimodal Human-Robot Interaction", In Proceedings of the European Conference on Mobile Robotics, Orebro, Sweden, September 2011.
- **127. Tapus, A.** and Aly, A. (2011) "User Adaptable Robot Behavior", In Proceedings of the IEEE International Conference on Collaboration Technologies and Systems (CTS), Philadelphia, USA, May 2011.
- **128.** Jebrari, I., Bazeille, S., **Tapus. A.,** Filliat, D., Benosman, R., Ieng, S.H., Meyer, C., Pothier, B., Mamanna. J.C., and Cizeron, E. (2011) "Multi-sensor semantic mapping and exploration of indoor environments", In Proceedings of the 3rd

- IEEE International Conference on Technologies for Practical Robot Applications (TePRA), Boston, MA, USA, April 2011.
- **129.** Zong, C., Chetouani, M. and **Tapus**, **A.** (2010) "Automatic detection of changes in walking speed with a mobility assistance system", In Proceedings of the 11th International Conference on Control, Automation, Robotics and Vision (ICARCV), Singapore, Dec 2010.
- **130.** Granata, C., Chetouani, M., **Tapus, A.**, Bidaud, P., and Dupourque, V. (2010) "Voice and graphical -based interfaces for interaction with a robot dedicated to elderly and people with cognitive disorders", In Proceedings of the 19th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Viareggio, Italy, Sept-Oct 2010.
- **131. Tapus, A.,** Tapus, C. and Matarić, M., J. (2009) "The Role of Physical Embodiment of a Therapist Robot for Individuals with Cognitive Impairments", Proceedings of the 18th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Toyama, Japan, Sept-Oct 2009.
- **132. Tapus, A.** (2009) "Long Term Learning and Online Robot Behavior Adaptation for Individuals with Physical and Cognitive Impairments", Proceedings of the International Conference on Advanced Technologies for Enhanced Quality of Life (AT-EQUAL), Iasi, Romania, July 2009.
- **133. Tapus, A.**, Tapus, C. and Matarić, M., J. (2009) "Long Term Learning and Online Robot Behavior Adaptation for Individuals with Physical and Cognitive Impairments", Proceedings of the International Conference on Field and Service Robotics (FSR), Boston, USA, 14-16 July 2009.
- **134. Tapus, A.**, Tapus, C. and Matarić, M., J. (2009) "The Use of Socially Assistive Robots in the Design of Intelligent Cognitive Therapies for People with Dementia", Proceedings of the International Conference on Rehabilitation Robotics (ICORR), Kyoto, Japan, June 2009.
- **135. Tapus, A.** (2009) "Assistive Robotics for Healthcare and Rehabilitation", Proceedings of the 17th International Conference on Control Systems and Computer Science (CSCS), Bucharest, Romania, May 2009.
- **136.** Ramisa, A., **Tapus, A.**, Lopez de Mantaras R., and Toledo R. (2008) "Mobile Robot Localization using Panoramic Vision and Combinations of Local Feature Region Detectors", In Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), Pasadena, CA, USA, April 2008.
- **137. Tapus**, A., Tapus C. and Matarić, M., J. (2007) "Hands-Off Therapist Robot Behavior Adaptation to User Personality for Post-Stroke Rehabilitation Therapy", In Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), Roma, Italy, April 2007.

- 138. Tapus, A. and Matarić, M., J. (2006) "User Personality Matching with Hands-Off Robot for Post-Stroke Rehabilitation Therapy", In Proceedings of the International Symposium on Experimental Robotics (ISER), Springer Tracts in Advanced Robotics, Rio de Janeiro, Brazil, July 2006.
- **139. Tapus, A.** and Siegwart, R. (2006) "A Cognitive Modeling of Space using Fingerprints of Places for Mobile Robot Navigation", In Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), Orlando, Florida, U.S.A., pp. 1188-1193, May 2006.
- **140. Tapus, A.**, Battaglia, F., and Siegwart, R. (2006), "The Hippocampal Place Cells and Fingerprints of Places: Spatial Representation Animals, Animats and Robots." In Proceedings of IAS-9, March 2006, Tokyo, Japan.
- **141.** Ramel, G., **Tapus, A.,** Aspert, F. and Siegwart, R. (2006), "Simple Form Recognition using Bayesian Programming." In Proceedings of IAS-9, March 2006, Tokyo, Japan.
- **142. Tapus, A.** and Siegwart, R. (2005), "Incremental Robot Mapping with Fingerprints of Places" In Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Edmonton, Canada, August 2005.
- **143. Tapus, A.,** Vasudevan, S. and Siegwart, R. (2005), "Toward a Multilevel Cognitive Probabilistic Representation of Space." In Proceedings of the International Conference on Human Vision and Electronic Imaging X (HVEI), part of the IS&T/SPIE Symposium on Electronic Imaging 2005, 16-20 January 2005, CA, USA.
- **144. Tapus, A.,** Ramel, G., Dobler, L. and Siegwart, R. (2004), "Topology Learning and Place Recognition using Bayesian Programming for Mobile Robot Navigation." In Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Sendai, Japan, September 2004.
- **145. Tapus, A.,** Tomatis, N. and Siegwart, R. (2004), "Topological Global Localization and Mapping with Fingerprint and Uncertainty." In Proceedings of the 9th International Symposium on Experimental Robotics (ISER), Springer Tracts in Advanced Robotics, Singapore, pp. 99-111, June 2004.
- **146. Tapus, A.,** Heinzer, S. and Siegwart, R. (2004), "Bayesian Programming for Topological Global Localization with Fingerprints." In Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), New Orleans, U.S.A., April 2004.
- **147.** Martinelli, A., **Tapus, A.**, Arras, K.O. and Siegwart, R. (2003), "Multiresolution SLAM for Real World Navigation." In Proceedings of the 11th International Symposium of Robotics Research (ISRR), Siena, Italy, October 2003.

- **148.** Martinelli, A., Tomatis, N., **Tapus, A**. and Siegwart, R. (2003) "Simultaneous Localization and Odometry Calibration for Mobile Robot." In Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Las Vegas, U.S.A., October 2003, vol.2, pp. 1499 1504.
- **149. Tapus, A.** and Aycard, O. (2003) "Searching a Target with a Mobile Robot." In Proceedings of the 14th International Conference on Control Systems and Computer Science (CSCS), Bucharest, Romania, July 2003.
- **150.** Lamon, P., **Tapus, A.,** Glauser, E., Tomatis, N. and Siegwart, R. (2003) "Environmental Modeling with Fingerprint Sequences for Topological Global Localization." In Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Las Vegas, U.S.A., October 2003, vol.3, pp. 3781 3786

#### **Refereed Conference Posters**

- **151.** Agrigoroaie, R., and **Tapus**, **A.** (2017) "Detecting Deception in a Human-Robot Interaction Scenario", In Proceedings of the HRI 2017, Late Break Report, Vienna, Austria, March 2017 (Conference A+)
- **152.** Agrigoroaie, R. and **Tapus**, **A.** (2016) "Developing a Healthcare Robot with Personalized Behaviors and Social Skills for the Elderly", In proceedings of the HRI 2016, part of the Pioneer Workshop.
- **153.** Ramaswamy A., Monsuez, B., and **Tapus.**, **A.** (2014) "Model Driven Software Development for Human-Machine Interaction Systems", In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI) Late Break Paper, Bielefeld, Germany, March 2014.
- **154.** Aly, A., and **Tapus**, **A.** (2012), "Speech Integrated Model for Generating a Combined Verbal and Nonverbal Behavior Based on Psychological Traits in HRI", In ROBOTDOC, Lausanne, Switzerland, September, 2012.
- **155.** Tapus, A., Peca, A., Aly, A., Pop, C., Jisa, L., Pintea, S., Rusu, A., and David, D. (2012) "Children with Autism Social Engagement in Interaction with Nao, an Imitative Robot-A Series of Single Case Experiments", In *Proceedings of the International Conference on Innovative Research In Autism 2012 (IRIA* 2012), Tours, France, May 2012.
- **156.** Aly, A. and Tapus, A. (2012) "Prosody-Driven Robot Arm Gestures Generation in Human-Robot Interaction", In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI) Late Break Paper, Boston, MA, USA, March 2012.
- **157.** Aly, A. and Tapus, A. (2011) "Towards an Online Voice-Based Gender and Internal State Detection Model", In Proceedings of the ACM/IEEE Human-

- Robot Interaction Conference (HRI) Late Break Paper, Lausanne, Switzerland, March 2011.
- **158.**Birlo, M. and **Tapus, A.** (2011) "The Crucial Role of Robot Self-Awareness in HRI", In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI)- Late Break Paper, Lausanne, Switzerland, March 2011.
- **159. Tapus, A.** (2009) "The Role of the Physical Embodiment of a Music Therapist Robot for Individuals with Cognitive Impairments: Longitudinal Study", Proceedings of the International Conference on Virtual Rehabilitation (VR), Haifa, Israel, July, 2009.
- **160. Tapus**, A., Tapus C. and Matarić, M., J. (2009) "Music Therapist Robot: A Solution for Helping People with Cognitive Impairments", Proceedings of the IJCAI 2009 Workshop on Intelligent Systems for Assisted Cognition, Pasadena, California, 12 July 2009.
- **161. Tapus**, A., Tapus C. and Matarić, M., J. (2009) "Music Therapist Robot for People Suffering from Dementia: Longitudinal Study", Proceedings of the International Conference on Alzheimer's Disease (ICAD), Vienna, Austria, 2009.
- **162. Tapus**, A., Tapus C. and Matarić, M., J. (2009) "Music Therapist Robot for Individuals with Cognitive Impairments", In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI), San Diego, USA, March 2009.
- **163. Tapus, A.,** Wade, E., and Matarić, M., J. (2008) "Using a Socially Assistive Robot in Gait Recovery and Training for Individuals with Cognitive Impairments", In Proceedings of AAAI Fall Symposium AI in Eldercare: New Solutions to Old Problem, Washington, DC, USA, November 7-9, 2008.
- **164. Tapus, A.** and Matarić, M., J. (2007) "Towards Active Learning for Socially Assistive Robots", In Proceedings of the Neural Information Processing Systems (NIPS) 2007 Workshop: Robotics Challenges for Machine Learning, Vancouver, Canada, December 2007.
- **165.** Bur, A., **Tapus, A.,** Ouerhani, N., and Hugli, H. (2006) "Robot Navigation by Panoramic Vision and attention Guided Features", In Proceedings of the 18th International Conference on Pattern Recognition (ICPR), Hong Kong, China, August 2006.
- **166. Tapus, A.** and Siegwart, R. (2006) "Fingerprints of Places: A Model of Hippocampal Place Cells", In Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), Orlando, Florida, U.S.A., May 2006.

## Refereed Workshop and Symposia Papers

**167.** Shangguan, Z., Yu, C., and **Tapus**, **A.** (2022) "What do I look like? Dataset for Social Robot Facial Expression Self-Awareness", In International Workshop on

- Robot Curiosity in Human-Robot Interaction (RCHRI), part of HRI 2022, March 2022
- **168.** Zhang, H. and **Tapus**, **A.** (2022) "Preliminary Study: Robot Telling Jokes and Human Humor Factor", In International Workshop on Context-Awareness in HRI: Approaches and Challenges, part of HRI 2022, March 2022
- **169.** Agrigoroaie, R., Ferland, F., and **Tapus, A.** (2019) " The ENRICHME Project: Validation of the Human-Machine Interface", In Proceedings of the MoRobAE A Workshop on Mobile Robot Assistants for the Elderly as part of ICRA 2019, Toronto, Canada, May 2019
- **170.** Ferland, F. and **Tapus**, **A.**, (2016) "System Integration for the ENRICHME Project: A Service Robot for Care Facilities for the Elderly", In Proceedings of Bailar WS as part of RO-MAN 2016, New York, USA, August 2016
- **171.** Aly, A., and **Tapus, A.** (2012), "How to Infer the Intention of Human while Interacting with a Robot?", In 5th Workshop for Young Researchers on Human-Friendly Robotics, Brussels, Belgium, November, 2012.
- **172.** Dang, T. H. H., and **Tapus**, **A.** (2012), "Stress Game In perspectives of Motivational Robotic Assistance", In Proceedings of IROS 2012 Workshop on Motivational Aspects of Robotics in Physical Therapy, Algarve, Portugal, October, 2012.
- 173. Dang, T. H.H., and Tapus, A. (2012), "Robot Personality Design for an Appropriate Response to the Human Partner", In Proceedings of Ro-Man 2012 Workshop on Feedback Readability for Robots, Paris, France, September, 2012
- **174.** Aly, A., and **Tapus**, **A.** (2011), "Speech-Driven Arm Gestures Synthesis in Multimodal Human-Robot Interaction", In 4th Workshop for Young Researchers on Human-Friendly Robotics, Twente, The Netherlands, November, 2011.
- **175.** Aly, A., and **Tapus, A.** (2010), "Gestures Imitation with a Mobile Robot in the Context of Human-Robot Interaction (HRI) for Children with Autism", In 3rd Workshop for Young Researchers on Human-Friendly Robotics, Tübingen, Germany, October, 2010.
- 176. Chetouani, M., Wu, Y. H., Jost, C., Le Pevedic, B., Fassert, C., Cristancho-Lacroix, V., Lassiaille, S., Granata, C., Tapus, A., Duhaut, D., Rigaud, A. S. (2010) "Cognitive Services for Elderly People: The ROBADOM project", In Proceedings of the European Conference on Cognitive Ergonomics 2010 (ECCE 2010), Workshop on "Robots That Care", Delft, The Netherlands, August 2010.
- 177. Tapus, A. and Chetouani, M. (2010) "ROBADOM: The Impact of a Domestic Robot on the Psychological and Cognitive State of the Elderly with Mild Cognitive Impairment", In *Proceedings of the Second International Symposium on Quality of Life Technology Intelligent Systems for Better Living*, Las Vegas, USA, June, 2010.

- **178.** Erden, S. and **Tapus**, **A.** (2010) "Postural expressions of emotions in a humanoid robot for assistive applications", *Robotics: Science and Systems (RSS) Workshop on Learning for Human-Robot Interaction Modeling*, Zaragoza, Spain, June, 2010.
- **179. Tapus, A.** and Matarić, M., J. (2009) "Improving the Quality of Life of People with Dementia through the Use of Socially Assistive Robots", *Proceedings of the First International Symposium on Quality of Life Technology Intelligent Systems for Better Living*, Pittsburgh, USA, June 30 July 1, 2009.
- **180. Tapus, A.** (2008) "Long-term learning and adaptation in intelligent personal robotics", In *Machine Learning: Theory, Applications, Experiences Workshop for Women in Machine Learning*, Vancouver, Canada, December 2008.
- **181. Tapus, A.** and Matarić, M., J. (2008) "Socially Assistive Robotic Music Therapist for Maintaining Attention of Older Adults with Cognitive Impairments", In *Proceedings of AAAI Fall Symposium AI in Eldercare: New Solutions to Old Problem*, Washington, DC, USA, November 7-9, 2008.
- **182. Tapus, A.** and Matarić, M., J. (2008) "Active Learning for Socially Assistive Robotics for Stroke Rehabilitation and Dementia Care", *Robotics: Science and Systems (RSS) Workshop on Interactive Robot Learning*, Zurich, Switzerland, June, 2008.
- **183. Tapus, A.**, Fasola, J., and Matarić, M., J. (2008) "Cognitive Assistance and Physical Therapy for Dementia Patients Using Socially Assistive Robots", *ICRA Workshop on Social Interaction with Intelligent Indoor Robots*, Pasadena, USA, May, 2008.
- **184. Tapus, A.,** Fasola, J., and Matarić, M., J. (2008) "Socially Assistive Robots for individuals suffering from dementia", *HRI Workshop on Robotic Helpers: User Interaction, Interfaces and Companions in Assistive and Therapy Robotics*, Amsterdam, The Netherlands, March, 2008.
- **185. Tapus, A.** and Matarić, M., J. (2008) "Socially Assistive Robots: The Link between Personality, Empathy, Physiological Signals, and Task Performance", *AAAI Spring Symposium*, Palo Alto, Stanford, USA, March, 2008.
- **186.** Matarić, M., J., **Tapus, A.**, and Feil-Seifer D. (2007) "Personalized Socially Assistive Robotics", *Workshop on Intelligent Systems for Assisted Cognition*, Rochester, New York, USA, October, 2007.
- **187. Tapus, A.** and Matarić, M., J. (2007) "Emulating Empathy in Socially Assistive Robotics", *AAAI Spring Symposium*, Palo Alto, Stanford, USA, March, 2007.
- **188. Tapus, A.** and Matarić, M., J. (2006) "Therapist Robot Behavior Adaptation for Post-Stroke Rehabilitation Therapy", In *Machine Learning: Theory*,

- Applications, Experiences Workshop for Women in Machine Learning, San Diego, U.S.A., October 2006.
- **189.** Matarić, M., J. and **Tapus, A.** (2006) "The Promises and Challenges of Socially Assistive Robotics", 50<sup>th</sup> Anniversary AI Summit, Monte Verita, Switzerland, July 2006.
- 190. Siegwart, R., Vasudevan S., and Tapus, A. (2004) "From Geometric to Cognitive Maps A Key Element for Personal Robots", 18<sup>th</sup> IFIP World Computer Congress, Toulouse, France, August 2004, pp. 755-760.

### **Invited Workshop and Symposia Papers**

- 191. Tapus, A. (2007) "Socially Assistive Robotics: Active Learning for User Task Performance Improvement", In *Assistive Technologies: Rehabilitation and Assistive Robotics Workshop, Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, San Diego, CA, USA, October, 2007.
- **192. Tapus, A.** (2007) "The Future of Therapy and Personal Care Robots: Towards Socially Assistive Robotics", In *Robotic Technology for Rehabilitation Workshop, Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, Roma, Italy, April 2007.
- **193. Tapus, A.** and Matarić, M., J. (2006) "User-Robot Personality Matching for Post-Stroke Rehabilitation Therapy", In *Socially Assistive Robotics Workshop*, *Proceedings of the Robotics: Science and Systems Conference (RSS)*, Philadelphia, Pennsylvania, U.S.A., August 2006.
- **194. Tapus, A.** (2006) "From Human-like Robot Navigation to Human-Robot Interaction", In *Cognitive Robots and Systems Workshop, Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, Orlando, Florida, U.S.A., May 2006.

#### **Dissertation/ Thesis**

- **195. Tapus, A.** (2011) "Towards Personalized Human-Robot Interaction" *HDR Dissertation (Habilitation a Diriger des Recherches)*, Computer Science Department, Pierre and Marie Curie University (UPMC), Paris, France, July 2011.
- **196. Tapus, A.** (2005) "Topological SLAM Simultaneous Localization and Mapping with Fingerprints of Places" *PhD Dissertation*, Computer Science and Systems Engineering Department, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland, October 2005.
- **197. Tapus, A.** (2002) "Markov Decision Processes Use for Mobile Robot Actions Planning and Execution." *Masters Degree Report in Computer Science*, Joseph Fourier University, Grenoble, France.

## Research Supervision/Jury

#### **Current PhD Students Advisor:**

- Yuqi Zheng (November 2022-November 2023, exchange PhD student)
- Xiaoxuan Hei (October 2022 present)
- Imane Taourarti (June 2022 present)
- Aleksa Marusic (October 2021 present)
- Antoine Autan (October 2021 present)
- Heng Zhang (February 2021 present)
- Shangguan Zhegong (November 2020 present)
- Timo Melman (October 2018 present)

#### Ph.D. Thesis Committee Member/Jury:

- Bjørn Ivar Teigen, University of Oslo, Norway (January 2023)
- Yang You, Université de Lorraine / CNRS / Inria Nancy-Grand-Est (December 2022)
- Maha Elgarf, KTH Royal Institute of Technology in Stockholm, Sweden (October 2022)
- Pouyan Asgharian, Sherbrooke University, Canada (May 2022)
- Marc Hulcelle, TélécomParis, France (May 2022)
- Lucia Migliorelli, Polytechnic University of Marche, Italy (March 2022)
- Luisiana Sabbatini, Polytechnic University of Marche, Italy (March 2022)
- Bob Schadenberg, University of Twente, The Netherlands (April 2021)
- David Farizon, Université de Lyon, France (Avril 2021)
- Katleen Blanchet, IP Paris, France (Janvier 2021)
- Yoan Sallami, Université de Toulouse, France (Janvier 2021)
- Taha Houda, Université Paris-Saclay, France (Novembre 2020)
- Aliaa Moualla, University Cergy-Pontoise, France (February 2020)
- Jean-Baptiste Corrégé, Université Paris Saclay (LIMSI), France (December 2018)
- Alix Perusseau-Lambert, Université Sorbonne (ISIR), France (October 2018)
- Ramoly Nathan, Telecom Sud Paris, France (Juillet 2018)
- Annagiulia Morachioli, Scuola Superiore Sant'Anna, The BioRobotics Institute, Italy (April 2018)
- Marina Paolanti, Universita Politecnica delle Marche, Italy (January 2018)

- Sam Bole, Clermont Ferrand France (July 2017)
- Raphael Rose-Andrieux, College de France, France (June 2017)
- Harald Zophoniasson, CEA, France (June 2017)
- Yuxin Chen, ENSTA ParisTech, France (February 2017)
- Gennaro Raiola, ENSTA ParisTech, France (February 2017)
- Caroline Lesueur-Grand, University Cergy-Pontoise, France (January 2017)
- Anne Laure Mealier, University Claude Bernard Lyon I, France (December 2016)
- Brian Ravenet, Telecom ParisTech, France (December 2016)
- Sean Andrist, University of Wisconsin Madison, USA (July 2016)
- Luis V. Calderita, University of Extramadura, Spain (October 2015)
- Amir Aly, ENSTA-ParisTech, France (December 2014)
- Martin Stoelen, Universidad Carlos III de Madrid, Spain (July 2014)
- Luis Manso, University of Extramadura, Spain (July 2013)
- Mathieu Warnier, LAAS, Toulouse, France (December 2012)
- Mathieu Labbe, Sherbrooke University, Canada (December 2011)

#### **Postdoc Students Advisor:**

- François Ferland (January 2015 September 2017) (currently Assistant Professor, Sherbrooke University, Canada)
- Amir Aly (January 2015 January 2016) (currently Assistant Professor at Plymouth, UK; previously Postdoctoral Fellow at Ritsumei University, Japan)
- Thi-Hai-Ha Dang (June 2012 March 2014) (currently Software Engineer at EOS Innovation)
- Mustafa Suphi Erden (January 2010 January 2011) (currently Assistant Professor at Heriot-Watt University, UK)

#### **PhD Students Advisor:**

- Chuang Yu (October 2017 –July 2021) (currently postdoc at University of Manchester, UK)
- Chuande Liu (October 2018 October 2021) (currently Assistant Professor at Nanjing University of Information Science and Technology (NUIST), China)
- David Octavian Iacob (October 2016 November 2019) (currently Researcher at ISL (Institut Franco-Allemand de Saint-Louis))
- Roxana Agrigoroaie (September 2015 June 2019) (currently on maternity leave)
- Moad Kissai (February 2016 June 2019) (currently Research Associate at Renault)
- Pierre-Henri Orefice (October 2015 October 2018) (currently Research Associate at CEA)
- Arturo Maya Cruz (October 2014 April 2018) (currently Researcher at Rapyuta Robotics (Japan), previously Research Associate at SoftBank Robotics (France))
- Pauline Chevalier (December 2013 December 2016) (currently Postdoctoral Fellow at IIT, Italy)

- Arun Ramaswamy (October 2012 April 2017) (currently Research Associate at Renault)
- Sean Andrist (January 2014 May 2014) Chateaubriand Fellowship (currently Research Associate at Microsoft Research, USA)
- Adrian Bostan (Octobre 2014 June 2017) (currently Signal Chain Applications Engineer, Microchip Technology)
- Amir Aly (September 2010 December 2014) (currently Postdoctoral Fellow at Ritsumei University, Japan)
- Cong Zong (December 2008 December 2010)
- Consuelo Granata (December 2008 December 2010) (currently Research Associate at Imperial College of London, UK)
- Manuel Birlo (February 2010 November 2011) (currently Software Engineer at Roche Diagnostics International Ltd., Switzerland)

#### **Masters Thesis Advisor:**

- Zexuan Sun (April 2022 August 2022)
- Xiaoxuan Hei (April 2020 August 2020)
- Radu Mihalcea (October 2018 January 2019)
- Stefan Dan Ciocirlan (August 2018- January 2019)
- Dulgheriu Denis (February 2018 Juillet 2018)
- Radu Mihalcea (February 2018 May 2018)
- Stefan Dan Ciocirlan (February 2017-May 2017)
- Radu Mihalcea (February 2017 May 2017)
- Mihaela Sorostinean (February 2017 August 2017)
- Roxana Lexutan (September 2014 June 2015), "Voice-based Emotional State Detection"
- Victor Rakosi (April 2012 December 2012), "Système de navigation et IHM pour véhicule hybride"
- Safia Nabil (April 2012 December 2012), "Convergence IHM multimédia de la future gamme de véhicule Renault"
- Raluca-Elena Podiuc (March 2011 August 2011), "The study of Self-Awareness in HRI"
- Erwan Renaudo (February 2011 July 2011), "Arm Monitoring and Movement Visualization with a Motion Capture Device"
- Amir Aly (February 2010 July 2010), "Study of Imitation for Children with Autism with a Mobile Robot"
- Nandeep Shah (January 2009 May 2009), "Robust and Secure External Interface for Bandit Humanoid Robot: Design and Modeling"
- Alexandre Bur (February 2005 June 2005), "Robot Navigation by Panoramic Vision and attention Guided Features"
- Stefan Heinzer (May 2003 September 2003), "Robot Localization Based on a Bayesian Approach"

#### **Undergraduate Project Advisor:**

- Stefan-Dan Ciocarlan (February 2017 May 2017)
- Adrian Ardeleanu (February 2017 May 2017)
- Alexandru Lucescu (February 2016 May 2016)
- Radu Mihalcea (February 2016 May 2016)
- Mihaela Sorostinean (February 2015 June 2015), "Human's physiological state monitoring with RGB-D and thermal cameras"
- Manea Flavian Costin (December 2014 July 2015), "Learning and Adaptation of Interaction Parameters for a Natural HRI"
- Mihaela Sorostinean (March 2014 June 2014), "Distributed Gaze Perception in a Receptionist Robot Scenario"
- Roxana Lexutan (March 2013 June 2013), "Facial Action Units Detection"
- Manel Driss (May 2012 August 2012), "Develop a gesture system based on a motion capture and a camera Kinect"
- Joseph Zhou (June 2008 August 2008), "Simple Head Movements and Nodding Detection by Using WATSON Application"
- Urmila Mahadev (September 2007 February 2008), "Hands-off Therapist Robot in Clinical Trials"
- Helena Wotring (May 2006 August 2006), "Tour Guide Robot: Human-Robot Interaction Interface"
- Leon Alexandre Berger (February 2005 June 2005), "Extraction of Relative Geometric Information between Objects in a Scene"
- Jan Matter (February 2004 June 2004), "Identification of Spatial Situations for an Autonomous Mobile Robot"
- Luc Dobler (October 2003 February 2004), "Bayesian Programming Applied for Root Localization"
- Etienne Glauser (October 2002 February 2003), "Topological Navigation with Vision and Range Data"

#### **Habilitation Committee (HDR Jury):**

- Raphëlle Roy, ISAE-SUPAERO, France (September 2022)
- Promotion committee of Iolanda Leite to Associate Professor position, KTH, Sweden (May 2020)
- Ghiles Mostafaoui, University Cergy-Pontoise, France (December 2017)

## **Grants and Contracts**

 « Bots4Eduaction», 2022 InterCarnots project; Carnot TSN (ENSTA Paris and Strate Ecole de Design) and Carnot CEA LIST, Starting Date: 01 January 2023, PI: Adriana Tapus, total € 80 000

- « Digital skills for Healthcare Transformation (DS4Health) », 2021 DIGITAL-2021-SKILLS-01-SPECIALISED, Starting Date: 01 January 2023, PI: Adriana Tapus, total € 19 800 000
- « Robotics and AI for Critical Asset Monitoring (RAICAM)», 2021 Marie-Curie Doctoral Networks results (2021-MSCA-DN), Starting Date: 01 January 2023; PI: Adriana Tapus, total € 283 000
- « Robotics by design Lab Artificial Intelligence, Robots & Humans? Living together» - Common Laboratory on Artificial Intelligence and Social Robotics, initiated by Strate Design School, ENSTA Paris, CESI LINEACT lab (2019)
- Project "Physiological state, deception and trust detection in HRI by using a mixture of Thermal and RGB-D cameras" (2016), PI: Prof. Adriana Tapus (ENSTA), student thesis: David Octavian IACOB, total € 109 000
- Digiteo Project "Haptic Emotional Robot Experiments with Sensitive Body" (HEROES) (2015), PI: Prof. Adriana Tapus (ENSTA), Prof. Mehdi Ammi (LIMSI, Paris XI) and Dr. Moustapha Hafez (CEA), total € 109 000
- Digiteo Project Conférence "International Conference on Social Robotics" (2015), PI: Prof. Adriana Tapus (ENSTA) and Prof. Jean-Claude Martin (LIMSI, Paris XI), total € 5000
- DGA Fellowship "Conception de Briques Génériques Logicielles et Patrons d'Architectures pour les Applications Critiques intégrant des processus d'Autonomie Décisionnelle", PI: Prof. Bruno Monsuez (ENSTA) and Prof. Adriana Tapus (ENSTA), total € 109 000
- EU Horizon2020 "ENRICHME: Enabling Robot and assisted living environment for Independent Care and Health Monitoring of the Elderly", PI: Roberto Rosso (TESAN), PI: A. Tapus (ENSTA-ParisTech), PI: N. Bellotto (UoL), PI: P. Baratinni (KONTOR), PI: V. Dupourque (Robosoft), PI: A. van Berlo (STICHTING SMART HOMES), PI: V. Gower (FONDAZIONE DON CARLO GNOCCHI ONLUS), PI: K. Wieczorowska-Tobis (PUMS), PI. D. Wieczorek (OPS), PI: P. Hobson (Lace Housing), PI: C. Prouskas (Aktios), total € 3 991 940. Jan 2015 Jan 2018. PSPC for "ROMEO 2", PI: D. Filliat (ENSTA-ParisTech), co-PI: A. Tapus, total € 509 309. Sept 2012 Sept 2015.
- Region IdF Project HANDICAP " Proprioceptive, Kinematic, Socially and Individualized Human-Machine Interaction" (HEROES) PI: Prof. Adriana Tapus (ENSTA), Prof. Brice Isableu (LIMSI, Paris XI) and Prof. Jean-Claude martin (LIMSI, Paris XI) total € 109 000
- PSPC for "ROMEO 2", PI: D. Filliat (ENSTA-ParisTech), co-PI: A. Tapus, total € 237 309. Sept 2012 – Sept 2015.

- ANR-Chaires d'Excellence (Excellent Researchers) for "HRIAA Human-Robot Interaction for Assistive Applications", PI: A. Tapus (ENSTA-ParisTech), total € 484 200 €. Dec 2009 Dec 2013.
- ANR-Carotte grant for "PACOM: Panoramic and Active Cameras for Semantic Object Mapping", PI: D. Filliat (ENSTA-ParisTech), co-PIs: A. Tapus (ENSTA-ParisTech), R, Benosman (UPMC), J.-C. Mammana (Gostai), total € 349 709. Sept 2009 Sept 2012.
- UPMC grant for "Intelligent Systems for Multi-perceptual Stimulation for Children with Developmental Disorders MULTI-STIM", PI: M. Chetouani (UPMC), co-PIs: A. Tapus (ENSTA-ParisTech), D. Cohen (UPMC), J. Xavier (GH Pitié-Salpêtrière), M. Plaza (GH Pitié-Salpêtrière), L. Chaby (Pierre Descartes University), total € 150,000. Mar 2010 Mar 2011.
- ANR-TecSan (Program for Technology for Health and Autonomy) grant for "ROBADOM: Impact of a robot "butler" at home on psychological and cognitive state of the elderly with mid cognitive impairment", PI: Anne-Sophie RIGAUD (BROCA Hospital), co-PIs: **A. Tapus** (ENSTA-ParisTech), M. Chatouani (UPMC), D. Duhaut (Université de Bretagne Sud), V. Dupourque (Robosoft), total € 736,316. Sept 2009 − Sept 2011.
- NSF Workshop Travel grant for "HRI Pioneers Workshop 2008", PI: J. Burke, co-PI: A. Tapus, total \$30,448, Jan 2008 Jan 2009.
- Netherlands Organisation for Scientific Research (NWO) Travel grant for "HRI Pioneers Workshop 2008", PI: **A. Tapus**, co-PI: M. Neerincx, total €5,000, Jan 2008.
- Institutional Review Board (IRB) Proposal for "Assessing Socially Assistive Robotics as Social and Cognitive Aides for the Elderly", PI: M. J. Matarić, co-PI: **A. Tapus** and M. Gatz, Oct 2007 Oct 2010
- NIH Aging and Disability Resource Center grant for "Assessing Socially Assistive Robotics as Social and Cognitive Aides for the Elderly", PI: M. J. Matarić, key personnel: A. Tapus, total \$80,000, Jun 2007- Jun 2008.
- NSF Human-Robot Interaction Program grant for "Personalized Assistive Human-Robot Interaction: Validation in Socially-Assisted Post Stroke Rehabilitation", PI: M. J. Matarić, co-PI: C. Winstein, key personnel: **A. Tapus**, total \$450,000, Sept 2007- Aug 2010.
- Institutional Review Board (IRB) Proposal for "Hands-Off Robot Therapist for Post-Stroke Rehabilitation" (HS-06-00628), PI: C. Winstein, co-PI: A. Tapus and M. J. Matarić, Jun 2007 Jun 2010.
- EU grant for "Bayesian Inspired Brain and Artefacts (BIBA)" (IST-2001-32115), PI: Pierre Bessiere, co-PI EPFL: Roland Siegwart, key personnel EPFL: **A. Tapus** and G. Ramel, total €1,640,000, Nov 2001 Nov 2005.

### **Reviewer for Granting Agencies**

Israeli National Science Foundation Austrian National Science Foundation Bulgarian National Science Foundation Canadian National Science Foundation Ireland National Science Foundation Romanian National Science Foundation

#### **Reviewer for Professional Journals**

**Autonomous Robots** 

International Journal of Social Robotics

**IEEE Transactions on Robotics** 

International Journal on Robotics Research (IJRR)

IEEE Robotics and Automation Magazine

**IEEE Intelligent Systems** 

**Interaction Studies** 

International Journal on Artificial Intelligence Tools (IJAIT)

Electronics and Telecommunications Research Institute Journal (ETRI)

#### **Reviewer for Professional Conferences**

IEEE International Conference on Robotics and Automation (ICRA)

IEEE/RSJ International Conference of Robots and Systems (IROS)

IFAC Symposium on Intelligent Autonomous Vehicles (IAV)

International Conference on Field and Service Robotics (FSR)

IEEE Intl. Symposium on Robot and Human Interactive Communication (RO-MAN)

IEEE Intl. Conference on Control, Automation, Robotics and Vision (ICARCV)

ACM/IEEE International Conference on Human-Robot Interaction (HRI)

International Conference on Informatics in Control, Automation, & Robotics (ICINCO)

IEEE International Conference on Rehabilitation Robotics (ICORR)

Robotics: Science and Systems (RSS)

## **Advisory Board**

EU FP7 EMOTE project

#### **Professional Affiliations**

Member:

**IEEE Robotics and Automation** 

IEEE Women in Engineering (WiE)

Women in Robotics towards Human Science, Technology, and Society

American Association for Artificial Intelligence (AAAI)

Center for Robotics and Embedded Systems (CRES)

American Psychology Association (APA)

#### **Research Working Groups**

University Paris-Saclay (France):

**DIGICOSME** Interactive Robotics

Research Ethics Committees (RECs)

FeDeV, Institute of Mouvement Interaction, part of the STIC Department

#### **European Union:**

GT: Robot's Social Intelligence and Natural Interaction Capabilities with End User Development Ethical Issues for Cyberphysical Systems

#### **Journal Editing Position**

*Editor* – Springer Current Robotics Research, Section on Service and Interactive Robotics - starting January 2020.

Associate Editor – Frontiers in Robotics and AI (HRI Section) - starting August 2018.

Associate Editor – ACM Transaction on Human-Robot Interaction (T-HRI) – starting January 2017

Associate Editor – IEEE Transactions on Cognitive and Developmental Systems (TCDS) – (January 2016 – January 2022).

Associate Editor - International Journal of Social Robotics – (2012-2022)

#### **Journal Editing**

Guest co-editor (with Mariacarla Staffa, Silvia Rossi, and Mehdi Khamassi), special issue of *International Journal on Social Robotics (IJSR)*, on "Behavior Adaptation, Interaction, and Artificial Perception for Assistive Robotics" (2020)

Guest co-editor (with Ayanna Howard and Isamu Kajitani), special issue of *IEEE Robotics and Automation Magazine (RAM)*, on "Socially Assistive Robotics" (2019) (Impact Factor: 4.816)

Guest co-editor (with Emanuele Frontoni and François Ferland), special issue of Elsevier Robotics and Autonomous Systems (RAS), September 2018 on "European Conference on Mobile Robotics 2017" (impact factor 1.256)

Guest co-editor (with Amir Aly, Griffiths Sascha, Stramandinoli Francesca, Nori Francesco), special issue of, December 2016 on Elsevier Robotics and Autonomous Systems (RAS), September 2016 on "Towards Intelligent Social Robots – Current Advances in Cognitive Robotics" (impact factor 1.256)

Guest co-editor (with Nicola Bellotto and Tom Duckett), special issue of Elsevier Robotics and Autonomous Systems (RAS), September 2016 on "European Conference on Mobile Robotics 2015" (impact factor 1.256)

Guest co-editor (with Cipriano Galindo and Oscar Martinez Mozos), special issue of Journal of Biomedical and Health Informatics, May 2014 on "Computer-Based Intelligent Technologies for Improving the Quality of Life"

Guest co-editor (with Maja Matarić), special issue of *Intelligent Service Robotics*, April 2008 on "Multidisciplinary Collaboration for Socially Assistive Robotics"

Guest co-editor (with Maja Matarić), special issue of Autonomous Robots, September 2007 on "Socially Assistive Robotics"

Guest co-editor (with Jim Ostrovski and Mark Yim), special issue of *IEEE Robotics and Automation Magazine (RAM)*, Vol. 14, No. 1, March 2007 on "Grand Challenges in Robotics"

#### **Conferences Organizing Committees**

- Allyship Co-chair, IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2023
- Associate Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2022
- Publication Co-Chair, Chinese International Conference on Artificial Intelligence (CICAI) 2022
- Associate Editor, IEEE International Conference on Intelligent Transportation Systems (ITSC) 2022
- Area Chair, Robotics Science and Systems (RSS) 2022
- Associate Editor, IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2022
- Program Committee, Human-Robot Interaction Conference (HRI) 2022
- Associate Editor, IEEE International Conference on Intelligent Transportation Systems (ITSC) 2021
- General Chair, IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2020
- Associate Editor, IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN) 2020
- "Technical Advances in HRI" chair track at Human-Robot Interaction, Human-Robot Interaction Conference (HRI) 2020
- Program Committee, Human-Robot Interaction Conference (HRI) 2020
- Associate Editor, IEEE International Conference on Intelligent Transportation Systems (ITSC) 2020
- Associate Editor, IEEE International Conference on Intelligent Transportation Systems (ITSC) 2019
- Associate Editor, International Conference on Social Robotics (ICSR) 2019
- Associate Editor, IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN) 2019
- General Chair, Human-Robot Interaction Conference (HRI) 2019
- Program Chair, Human-Robot Interaction Conference (HRI) 2018
- Program Committee, Human-Robot Interaction Conference (HRI) 2017
- Session Chair "Creating Expressive Robots", Human-Robot Interaction Conference (HRI) 2017

- Program Committee, HRI Pioneers Workshop 2017
- Program Committee, IEEE International Conference on Robotic Computing (ICRC) 2017
- Program Committee, International Workshop on Agent Technology for Ambient Intelligence (AgTAmI) 2017
- Program Committee, Workshop on Behavior Adaptation, Interaction and Learning for Assistive Robotics (BAILAR) 2017
- Associate Editor, IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN) 2017
- Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2017
- General Chair, European Conference on Mobile Robotics (ECMR) 2017
- Associate Editor, IEEE Intl. Symposium on Robot and Human Interactive Communication (RO-MAN) 2016
- General Chair, International Conference on Social Robotics (ICSR) 2015
- Program Chair, European Conference on Mobile Robotics (ECMR) 2015
- Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2015
- Associate Editor, IEEE International Conference on Robotics and Automation (ICRA) 2015
- Program Committee, Human-Robot Interaction Conference (HRI) 2015
- Program Committee, AISB Symposium on New Frontiers in Human-Robot Interaction, 2015
- Program Committee, 20th International Conference on Control Systems and Computer Science (CSCS) 2015
- Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2014
- Special Area Chair, IEEE Intl. Symposium on Robot and Human Interactive Communication (RO-MAN) 2014
- Program Committee, Human-Robot Interaction Conference (HRI) 2014
- Associate Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2013
- Program Committee, Human-Robot Interaction Conference (HRI) 2013
- Program Committee, Human-Robot Interaction Conference (HRI) 2012
- Publication Chair, Human-Robot Interaction Conference (HRI) 2012
- Program Committee, International Conference on Social Robotics (ICSR) 2011
- Associate Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2011
- Area Chair, ACM 13th International Conference on Multimodal Interaction (ICMI 2011)
- Associate Editor, IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2011)
- International Program Committee, 5th European Conference on Mobile Robots (ECMR 2011)
- Scientific Committee, International Conference on Rehabilitation Robotics (ICORR) 2011
- Steering Committee, Human-Robot Interaction Conference (HRI) 2011 Workshop Chair

- General Chair, IEEE-RAS/ IFRR School of Robotics Science on Social and Cognitive Robotics Interaction, 2010
- *Program Committee*, AISB Symposium on New Frontiers in Human-Robot Interaction, 2010
- Steering Committee, Human-Robot Interaction Conference (HRI) 2010 Workshop Co-Chair (with Selma Sabanovic)
- Technical Committee on Robot Learning, IEEE Robotics and Automation Society
- *Program Committee*, Exploratory Workshop on Assistive and Recuperative Technologies for Injured, ill, Pregnant, Elderly and people with Disabilities 2009 (ARTIPED 2009)
- *Program Committee*, 8<sup>th</sup> IEEE International Conference on Development and Learning 2009 (ICDL 2009)
- Associate Editor, IEEE International Conference on Robotics and Automation (ICRA) 2009
- *Program Committee*, Human-Robot Interaction (HRI) Pioneer Workshop, part of the 4<sup>th</sup> Human-Robot Interaction Conference (HRI2009) 2009
- Steering Committee, Human-Robot Interaction Conference (HRI) 2009 Local Organization Chair
- *Program Committee*, AISB Symposium on New Frontiers in Human-Robot Interaction, 2009
- Program Committee, 2008 International Conference on Intelligent Sensors, Sensor Networks & Information Processing (ISSNIP) 2008, Symposium on Human-Robot Interaction
- *Program Committee*, 5<sup>th</sup> International Conference on Informatics in Control, Automation, & Robotics (ICINCO) 2008
- Program Committee, IASTED International Conference on Assistive Technologies (AT) 2008
- Steering Committee, IEEE International Conference on Robotics and Automation (ICRA) 2008 Video Proceedings Co-Chair (with Nancy Pollard)
- *Program Committee*, IEEE/RSJ International Conference of Robots and Systems (IROS) 2007 Workshop "From sensors to human spatial concepts"
- *Program Committee*, International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP) 2007
- *Program Committee*, IEEE 10<sup>th</sup> International Conference on Rehabilitation Robotics (ICORR) 2007
- *Program Committee*, 4<sup>th</sup> International Conference on Informatics in Control, Automation, & Robotics (ICINCO) 2007

#### **Selection Committee:**

- INRIA DR2 (2020)
- INRIA DR2 (2019)
- INRIA DR2 (2018)
- INRIA CR1 (2017)

#### **Symposium and Workshop Organization**

(a) Co-Organizer (with Chuang Yu, Siyang Song, Leimin Tian, Zhao Han, Xiaofeng Liu, Aiguo Song), International Workshop on "Affective Human-

- Robot Interaction (AHRI)" part of the 10<sup>th</sup> International Conference on Affective Computing and Intelligent Interaction (ACII 2022), October 2022
- **(b)** Co-Organizer (with Shangguan Zhegong, Xuguang Lan, Nengchao Lyu, Mengyuan Ding), International Workshop on "Human Behavior Understanding: Having an Eye Inside and Outside of the Car for Better Accident Prediction" part of the International Conference on Intelligent Transportation Systems (ITSC 2022), October 2022
- (c) Co-Organizer (with Pauline Chevalier, Amir Aly, Bob Schadenberg, Angelo Cangelosi), International Workshop on "Context-Awareness in Human-Robot Interaction: Approaches and Challenges" part of the Human-Robot Interaction Conference (HRI 2022), March 2022
- (d) Co-Organizer (with Bruno Monsuez, Vincente Milanes, Moad KIssai), International Workshop on "The 2nd international workshop on Chassis Systems Control and Autonomous Driving control (CSC-AD'21)" part of the International Conference on Intelligent Vehicles (IV 2021), October 2021
- (e) Co-Organizer (with Leon Bodenhagen, Oskar Palinko, Francois Michaud, Julie M. Robillard), International Workshop on "Robots for Health and Elderly Care An Honest Discourse on the Gap Between Research and Practical Applications" part of IROS 2020, October 2020
- (f) Co-Organizer (with Bruno Monsuez, Vincente Milanes, Moad KIssai), International Workshop on "Impact of Chassis Systems Control on Autonomous Driving" part of the International Conference on Intelligent Vehicles (IV 2020), October 2020
- (g) Co-Organizer (with Moad Kissai, Bruno Monsuez, Barys Shyrokau), special session chairs at IEEE Intelligent Transportation Systems Conference (ITSC), session on "ADAS and Chassis Systems Coordination", September 2020
- (h) Co-Organizer (with Francois Michaud, Francois Ferland, Goldie Nejat, Eva Barrett, Dympna Casey), International Workshop on "MoRobAE Mobile Robot Assistants for the Elderly" part of ICRA 2019, May 2019
- (i) Co-Organizer (with Francois Michaud, Francois Ferland), International Workshop on "Rehabilitation Robotics for the Elderly" part of 12th International Society of Physical and Rehabilitation Medicine (ISPRM) World Congress, July 2018
- (j) Co-Organizer (with Cristiano Premebida, Diego Faria, Roxana Agrigoroaie), International Workshop on "Benchmarking in HRI" part of IROS 2018 Conference, October 2018
- (k) Co-Organizer (with Urbano Nunes, Cristiano Premebida, Diego Faria, Roxana Agrigoroaie), International Workshop on "Artificial Perception, Machine Learning and Datasets for Human-Robot Interaction (ARMADA 2018)" part of RO-MAN 2018 Conference, August 2018 Co-Organizer (with Dimitrios Chrysostomou, Paolo Barattini, Johan Kildal, Yue Wang, Jacopo Fo, Kerstin Dautenhahn, Francois Ferland, Adriana Tapus, Gurvinder S. Virk) International Workshop on "Towards Reproducible HRI Experiments: Scientific endeavours; benchmarking and standardization" part of HRI 2017 Conference, March 2017
- (I) Co-Organizer (with Gurvinder Singh Virk, Nicole Mirnig, Paolo Baratini, Maria-Elena) International Workshop on "Experimenting in HRI for Priming Real World Set-ups, Innovations and Products" part of ICRA 2016 Conference, May 2016

- (m)Co-Organizer (with Larence Devillers, Digicosme, ISN), La robotique interactive à Paris-Saclay, E3-ROBOTIC: Expérimentation/Evaluation/Ethique et usages en ROBOTique Interactive, Pole Co-évolution Humain-Machine (ISN)- GT Robotique Interactive (DIGICOSME), ENSTA ParisTech, May 2016
- (n) Co-Organizer (with Amir Aly, Griffiths Sascha, Stramandinoli Francesca, Nori Francesco) International Workshop on "Towards Intelligent Social Robots Current Advances in Cognitive Robotics" part of Humanoids 2015, November 2015
- (o) Co-Organizer (with Nicole Mirnig\*, Paolo Barattini, Dimitrios Chrysostomou, Lars Dalgaard, Maria Elena Giannaccini, Manuel Giuliani, Tamas Haidegger, Gurvinder Singh Virk) International Workshop on "Towards Standardized Experiments in Human-Robot Interactions" part of IROS 2015, September 2015
- (p) Co-Organizer (with Shashank Pathak, Arun Ramasawamy and Bruno Monsuez), 2015 Robotics: Science and Systems (RSS 2015), Workshop on "Using formal methods in "real" world robotics and complex CPS, focusing on scalability, verifiability and applicability", July 2015
- (q) Co-Organizer (with Arun Ramasawamy and Bruno Monsuez), 20th International Symposium on Formal Methods (FM 2015), Workshop on "Formal Methods and Model-Driven Engineering in Robotics", June 2015
- (r) Co-Organizer International Workshop on Collaborative Robots and Human Robot Interaction part of the 2015 International Conference on Collaboration Technologies and Systems (CTS 2015), May 2015
- **(s)** Co-Organizer (with Arun Ramasawamy, Javier-Ibanez Gutzman, and Bruno Monsuez), IEEE International Conference on Systems, Man and Cybernetics (SMC 2014), Workshop on "System Engineering Human-Centered Intelligent Vehicles", October 2014.
- (t) Co-Organizer (with Mehdi Ammi and Jean-Claude Martin), IEEE International Conference on Robotics and Automation (ICRA 2014), Workshop on "Affective Haptics for Human-Robot Interaction", June 2014.
- (u) Co-Organizer (with Pablo Bustos) International Workshop on Collaborative Robots and Human Robot Interaction part of the 2014 International Conference on Collaboration Technologies and Systems (CTS 2014), May 2014
- (v) Co-Organizer (with Gurvinder Singh Virk, Fabio Paolo Bonsignorio, Nicole Mirnig, Paolo Barattini, Maria-Elena) International Workshop on "Experimenting in HRI for Priming Real World Set-ups, Innovations and Products" part of Human-Robot Interaction Conference, March 2014
- (w) Co-Organizer (with Gurvinder Singh Virk, Fabio Paolo Bonsignorio, Nicole Mirnig, Manfred Tscheligi, Sami Haddadin, Markus Vincze, Boon Siew Han, Hooman Samani, Nicola Bellotto, Andrea Corradini, Paolo Barattini, Neil Martin Robertson, Claire Morand, Alberto Felice Rovetta, Christian Wögerer, Andreas Pichler) International Workshop on Human Robot Interaction (HRI) for Assistance and Industrial Robots. Scientific Knowledge, Standards and Regulatory Framework. How do I design for the real world? part of the 2013 IEEE International Conference on Robotics and Automation (ICRA 2013), May 2013
- (x) Co-Organizer (with Selma Sabanovic, Eric Meisner, and Cindy Bethel) International Workshop on Collaborative Robots and Human Robot Interaction part of the 2013 International Conference on Collaboration Technologies and Systems (CTS 2013), May 2013

- (y) Co-Organizer (with Marina Fridin, Mark Belokopytov, and Mindy Aisen), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2012), Workshop on "Motivational Aspects of Robotics in Physical Therapy", October 2012.
- (z) Co-Organizer (with Selma Sabanovic, Eric Meisner, and Cindy Bethel) International Workshop on Collaborative Robots and Human Robot Interaction part of the 2012 International Conference on Collaboration Technologies and Systems (CTS 2012), May 2012
- (aa) Co-Organizer (with Selma Sabanovic and Eric Meisner) International Workshop on Collaborative Robots and Human Robot Interaction part of the 2011 International Conference on Collaboration Technologies and Systems (CTS 2011), May 2011
- **(bb)** Co-Organizer (with Mohamed Chetouani) Robotics: Science and System (RSS) 2010 Workshop on "Learning for Human-Robot Interaction Modeling", June 2010.
- (cc) Organizer Human-Robot Interaction (HRI) Pioneer Workshop 2008 part of the 3<sup>rd</sup> Human-Robot Interaction Conference (HRI2008), March 2008.
- (dd) Co-Organizer (with Javier Minguez and Maja Matarić) IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2007 Workshop on "Assistive Technologies: Rehabilitation and Assistive Robotics", October 2007.
- (ee) Co-Organizer (with Cory Kidd, Jennifer Burke and Andrea Thomaz) Human-Robot Interaction (HRI) Pioneer Workshop 2007 part of the 2<sup>nd</sup> Human-Robot Interaction Conference (HRI 2007), March 2007.
- (ff) Co-Organizer (with Marek Michalowski, Selma Sabanovic, Maja Matarić, Cynthia Breazeal, Francois Michaud, Reid Simmons, Kerstin Dautenhahn, Carl DiSalvo and Illah Nourbakhsh) AAAI 2007 Spring Symposium on "Multidisciplinary Collaboration for Socially Assistive Robotics", March 2007.
- (gg) Co-Organizer (with Maja Matarić) Robotics: Science and System (RSS) 2006 Workshop on "Socially Assistive Robotics", August 2006.

# Media Coverage

- "Social Robotics: robots for a better daily life (Robotique sociale: des robots pour mieux vivre au quotidien)", Institut Carnot, July 2021
- DailyMail, "'Emotional' robots can judge your personality and tell if you're male or female simply by shaking your hand", (\url{http://www.dailymail.co.uk/sciencetech/article-4902772/Sensitive-robots-tell-gender-handshake.html}), by Phoebe Weston, September 2017
- The Sun, "MANDROID OR FEMBOT? Robots that sense human touch can now tell if you're male or female based on your handshake", (https://www.thesun.co.uk/tech/4505110/robots-that-sense-human-touch-can-now-tell-if-youre-male-or-female-based-on-your-handshake/), by Margi Murphy, September 2017
- Université Paris Saclay, "l'Edition de l'Université Paris-Saclay 5 | Université Paris Saclay" (https://www.universite-paris-saclay.fr/fr/ledition-de-luniversite-paris-saclay-5), August 2017

- Sciences et Avenir, "Robot: Il peut être votre ami. A certaines conditions" (<a href="http://www.sciencesetavenir.fr/high-tech/robot/20151028.OBS8496/robot-il-peut-etre-votre-ami-a-certaines-conditions.html">http://www.sciencesetavenir.fr/high-tech/robot/20151028.OBS8496/robot-il-peut-etre-votre-ami-a-certaines-conditions.html</a>), by Olivier Hertel, October 2015
- Wired Magazine News, "When robots die: The existential challenges of humanrobot interaction" (<a href="http://www.wired.co.uk/news/archive/2011-10/11/when-robots-die">http://www.wired.co.uk/news/archive/2011-10/11/when-robots-die</a>), by Emmet Cole, October 2011
- Wired Magazine News, "The HRIAA Project: Behind the mission to help people and bots Kinect" (<a href="http://www.wired.co.uk/news/archive/2011-09/07/hriaa">http://www.wired.co.uk/news/archive/2011-09/07/hriaa</a>), by Emmet Cole, September 2011
- Curentul.ro, "Nao a robot for children with autism" (<a href="http://www.curentul.ro/2011/index.php/2011051058072/Social/Opt-copii-cu-autism-testati-clinic-de-psihologi-cu-ajutorul-robotului-Nao.html">http://www.curentul.ro/2011/index.php/2011051058072/Social/Opt-copii-cu-autism-testati-clinic-de-psihologi-cu-ajutorul-robotului-Nao.html</a>), May 2011
- Capital.fr, "Comment l'interface homme-machine révolutionne notre quotidien" (How the human-machine interfaces revolutionize our daily lives), TV show (<a href="http://www.capital.fr/enquetes/business-innovation/comment-l-interface-homme-machine-revolutionne-notre-quotidien">http://www.capital.fr/enquetes/business-innovation/comment-l-interface-homme-machine-revolutionne-notre-quotidien</a>), Paris Tech Insight, January 2011
- "La Recherche à l'honneur" (Research in the spotlight), Conseil Scientifique de ParisTech, destinée à mettre en valeur et à promouvoir sa communauté scientifique, ses résultats et ses partenaires, January 2011
- "1000 Chercheurs parlent de l'avenir", by Pierre Maraval, October 2010.
- ENSTA-ParisTech Newsletter, "Adriana Tapus, titulaire d'une chaire de l'ANR", by Adrien Quenette, November 2009.
- Artificial Intelligence (AI) Magazine, "AAAI 2007 Spring Symposium Series Reports: Multidisciplinary Collaboration for Socially Assistive Robotics", by Adriana Tapus, Fall 2007, volume 28, number 3, pp. 98-99.
- Financial Times Deutschland, "Es ist zu deinem Besten!", by Ole Neugebauer, August 4, 2006. (Financial Times Deutschland, "It is to the robots best!", by Ole Neugebauer, August 4, 2006)
- New Scientist, "A good robot has personality but not looks", by Celeste Biever, 20 July 2006, magazine issue 2561.
- LaFlecha, tu diario de ciencia tecnologia, "El cerebro de los mamiferos inspira nuevos sistemas de navegacion autonoma", by Marta Morales, June 26, 2006. (TheArrow, the magazine of technological sciences, "The mamifers brain inspires new autonomous navigation systems", by Marta Morales, June 26, 2006).
- The MIT Technology Review, "Outward Bound for Robots", by Duncan Graham-Rowe, May 31, 2006.

#### **Invited Talks**

#### **Keynote Talks**

- Keynote Speaker Geriatronics Summit 2022, Germany June 2022
- Invited Speaker "Complementary Training of Doctoral Students of IP Paris", Doctoral Day at ENIT Tunis – May 2022

- Invited Speaker "Challenges in Assistive Robotics: Long-term Interaction, Personalization and Trust", University Politechnica of Bucharest, Romania – May 2022
- Keynote Speaker "Testimony "becoming a research leader in academia", ANIMATAS Career After PhD Workshop April 2022
- Invited Speaker "Social Robotics in daily life", the inauguration of the International Center of Excellence in Artificial Intelligence @UPB, 3rd of December 2021
- Keynote Speaker "IP Paris Doctoral Schools", European MIT Career Fair, April 2022
- Invited Speaker "Speech-driven Robot Gesture Generation with GAN", PC meeting HRI 2022 – November 2021
- Invited Speaker "Challenges in Assistive Robotics: Long-term Interaction, Personalization and Trust", Hi!Paris Webinar "AI for healthcare", 9th of April 2021
- Invited Speaker "Challenges in Assistive Robotics: Long-term Interaction, Personalization and Trust", ROBOTICS by DESIGN Lab, 4th of February 2021
- Invited Speaker "Trust and Deception in Human-Robot Interaction", University of California San Diego (UCSD), November 2019
- Keynote Speaker HRI Pioneers Workshop part of HRI 2019, Daegu, South Korea - March 2019
- Keynote Speaker Workshop on "Social Robots in therapy: focusing on autonomy and Ethical Challenges (SREC18)" part of HRI 2018, Chicago, USA -March 2018
- Invited Speaker EUR ASPIE " Construire une Université Aspie-friendly ", Paris February 2018
- Keynote Speaker Conference "Robotics and Mental Health", organized by: French Academy of Technology, University Paris VII Denis Diderot (CRPMS), and Institute pour l'Etude de la Relation Homme Robot (IERHR), October 2017
- Keynote Speaker Workshop on "Clinically Meaningful Advancements of Socially Assistive Robots Through Systematic Data Collection and Sharing", part of HRI 2017, March 2017
- Keynote Speaker Workshop on "Clinically Meaningful Advancements of Socially Assistive Robots Through Systematic Data Collection and Sharing", part of HRI 2017, August 2017
- Invited Speaker Workshop on "Clinically Meaningful Advancements of Socially Assistive Robots Through Systematic Data Collection and Sharing", part of HRI 2017, August 2017
- Invited Speaker Workshop on "Clinically Meaningful Advancements of Socially Assistive Robots Through Systematic Data Collection and Sharing", part of HRI 2017, March 2017

- Invited Speaker Renault Journée Innovation, November 2016
- Invited Speaker Technische Univerity of Munchen (TUM), November 2016
- "Towards Long-life Learning and Adaptation in Human-Robot Interaction" Keynote Speaker Centre d'Alembert Université Paris-Sud, March 2016
- "Towards Long-life Learning and Adaptation in Human-Robot Interaction" Keynote Speaker, RAAD 2015, May 2015
- "Towards Long-life Learning and Adaptation in Human-Robot Interaction" Distinguished Panelist, HRI Pioneers Workshop, Portland, March 2015
- "Human Modeling in Human-Robot Interaction" keynote talk, REACTS 2013, York, UK, August 2013
- "Customized Human-Robot Interaction" keynote talk, International Conference on Human-Machine Systems, Cyborgs, and Enhancing Devices (HUMASCEND), Iasi, Romania, June 2012
- "Towards Personalized Assistive Human-Robot Interaction" keynote talk, 4th Workshop on Human-Friendly Robotics (HFR 2011), Twente, The Netherlands, November 2011

## **Invited Talks - excluding conference paper talks**

- "Innovation and health; Social robotics", Panel discussion, ENSTA Paris, 12th of January 2021
- "Human-Robot Interaction for Robots" Innovation Day Renault, Paris, November 2016
- "Learning and Adaptation in HRI" Technische Univerity of Munchen, Germany, November 2016
- "Towards Long-life Learning and Adaptation in Human-Robot Interaction" Guest Lecture, King's College London, London, UK, September 2016
- "Towards Long-life Learning and Adaptation in Human-Robot Interaction" Guest Lecture, National University of Singapore (NUS), Singapore, October 2014
- "Customized Human-Robot Interaction" Guest Lecture, University Babes-Bolyai, Cluj-Napoca, Romania, May 2011
- "Human-Robot Interaction for Socially Assistive Applications" Congress on « Où vivre vieux en 2030? Habiter autrement dans 20 ans » (Where to live long in 2030? Live differently in 20 years), Paris, France, December 8, 2010
- "Human-Robot Interaction for Socially Assistive Applications" Workshop on Robotics, Virtual Technology: Implications and Applications in Cognitive Sciences (DIASPORA 2010), Bucharest, Romania, September 21, 2010
- "Assistive Robotics for Customized Cognitive Stimulation and Physical Rehabilitation" 7th French National Days in Robotics Research (JNRR 2009), France, November 5, 2009.
- "Socially Assistive Robots for Future Therapeutic and Personal Care" Lecturer, International School in Robotics and Intelligent Systems (ISRIS 2009),

- Focus theme: Assistive robots and systems for healthcare and rehabilitation, Iasi, Romania, July 22-26, 2009.
- "Robotic Systems Acting in Human-Centered Environments: From Human-like Robot Navigation to Human-Robot Interaction" Guest Lecture, Birmingham University, Birmingham, UK, October 2008.
- "Robotic Systems Acting in Human-Centered Environments: From Human-like Robot Navigation to Human-Robot Interaction" Guest Lecture, Ecole Nationale Supérieure de Techniques Avancées (ENSTA-ParisTech), Paris, France, September 2008.
- "Robotic Systems Acting in Human-Centered Environments: From Human-like Robot Navigation to Human-Robot Interaction" Guest Lecture, Willow Garage, Menlo Park, CA, USA, July 2008.
- "Robotic Systems Acting in Human-Centered Environments: From Human-like Robot Navigation to Human-Robot Interaction" Guest Lecture, Jet Propulsion Laboratory (JPL), Pasadena, USA, May 2008.
- "Human-Robot Interaction for Assistive Applications" Guest Lecture, National Science Foundation, Switzerland, February 2008.
- "Robotic Systems Acting in Human-Centered Environments: From Human-like Robot Navigation to Human-Robot Interaction" Guest Lecture, Georgia Tech, Atlanta, USA, February 2007.
- "Navigation with Fingerprints of Places for Human-Robot Interaction Tasks" Guest Lecture, TOSHIBA Corporate Research and Development Center, Human-centric Laboratory, Tokyo, Japan, March 2006.
- "A Human-like Solution to Do SLAM (Simultaneous Localization and Mapping) using Fingerprints of Places for Mobile Robots Navigation" Guest Lecture, Control and Dynamical Systems Lab, California Institute of Technology (CALTECH), USA, February 2006.
- "Fingerprints of Places: A Model of Hippocampal Place Cells" Guest Lecture, Laboratory of Physiology of Perception and Action, College de France, Paris, France, September 2005.
- "Topological SLAM with Fingerprints of Places" Guest Lecture, Artificial Intelligence Laboratory, Stanford University, California, USA, January 2005.
- "Fingerprints of Places a Natural Solution for SLAM" Guest Lecture, Robotics Research Laboratory, University of Southern California, Los Angeles, California, USA, January 2005.

## Miscellaneous

- « Les robots et les sciences », Lycée Saint-Jean Hulst, Versailles (2018, 2022)
- Forum Métiers, Lycée Hoche, Versailles (2013-2016)
- Fête de la Science (2010-2019)
- Table ronde de sensibilisation : « Les femmes et le travail : entre stéréotypes et réalités », Lycée Hoche, Versailles (2014)
- Exposition "1000 chercheurs" Portraits chercheurs, by Pierre Maraval (2010)