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Data di nascita: 25 marzo 1971—Verona, Italia
Nazionalità: italiana

Posizione attuale

Professore associato, Dip. di Ingegneria dell'Informazione, Università di Padova

Aree di specializzazione

Sound and music computing, Affective computing, Computational creativity, Computing and cultural heritage, Serious games

Educazione

Giu 2007	PH.D in Audiovisual Studies at the University of Udine. Supervisor: Prof. Angelo Orcalli.
Ott 1996	M.Sc. in Electronic Engineering at the University of Padova. Supervisor: Prof. Giovanni De Poli.
Feb 2009	DEGREE in Music Composition at the Verona Conservatory of Music. Supervisor: Prof. Andrea Mannucci
Giu 1994	DEGREE in Violin at the Padova Conservatory of Music. Supervisor: Prof. Pietro Juvarra

Interessi di ricerca

I miei interessi di ricerca si collocano all'interno dell'ambito scientifico **Sound and Music Computing**, che secondo la tassonomia ACM Computing Classification System 2012 è incluso in **Human-centered computing - Interactive systems and tools** e in **Applied Computing - Arts and humanities**. In particolare, i miei lavori iniziali erano finalizzati allo studio di modelli e algoritmi per l'esecuzione automatica della musica [27, 28, 29, 30, 31, 32, 33]. I risultati dell'attività sperimentale si sono concretizzati nell'implementazione del sistema CaRo [14], un software che, seguendo un approccio *rule-based*, simula l'espressività musicale di un pianista umano. CaRo ha vinto la fase finale di Rencon 2011, il più importante *contest* internazionale tra algoritmi per l'esecuzione automatica della musica.

Questi studi mi hanno portato ad approfondire la relazione tra musica ed emozioni, che rappresenta un aspetto chiave nell'esecuzione della musica. In collaborazione con il Prof. Emery Schubert, psicologo della musica della University of New South Wales, ho lavorato a modelli computazionali per il riconoscimento e la simulazione delle emozioni in musica [4, 8, 15, 35, 55, 57], tematica appartenente all'ambito scientifico denominato **Affective Computing**. I lavori in questo campo sono stati, tra l'altro, pubblicati in tre articoli sulla IEEE Transaction on Affective Computing [11, 12, 17].

Altri interessi di ricerca riguardano l'ambito del **Computing and cultural heritage**, sia per beni musicali (in collaborazione con gli archivi sonori della Fondazione Arena di Verona, del Teatro Regio di Parma, dello Studio di Fonologia della RAI) [20, 18, 19, 26], che archeologici (in collaborazione con la Prof. Paola Zanovello, archeologa) [51, 52]. In particolare mi sono occupato di studiare modelli per l'interazione gesto-suono con simulazioni digitali di strumenti musicali dell'antichità, come ad esempio un flauto di Pan proveniente dall'antico Egitto, ora conservato presso il Museo di scienze archeologiche dell'Università di Padova, e una tromba di epoca imperiale Romana, conservato presso il Museo civico di Belriguardo [42].

Negli ultimi anni, ho infine condotto un'attività di studio e sperimentazione di tecnologie per il potenziamento di persone con deficit sensoriale (in collaborazione con il Dr. Marco Ricca, psicologo della Fondazione R. Hollman) [5], cognitivo (in collaborazione con la Prof. Maja Roch, psicologa), e fisico (in collaborazione con il Prof. Stefano Masiero, medico della riabilitazione) [21]. Risultati di questo lavoro sono un ambiente multimodale per l'apprendimento potenziato (denominato *aiLearn*) [22, 23], un framework multi-avatar per la terapia nei disturbi del linguaggio [3, 47, 50], e alcuni **serious games**, tra cui: *Parrot game*, per la diagnosi precoce dei disturbi nello sviluppo del linguaggio; *Parlaspesa* per l'apprendimento dell'italiano come L2; *Resonant memory*, per l'apprendimento nella scuola primaria; *Following the cuckoo sound*, per l'allenamento alla mobilità di persone con deficit visivo acuto; *Attenti al Poi*, per facilitare l'inserimento nel mondo del lavoro di persone con Sindrome di Down.

Principali collaborazioni scientifiche

- Prof.ssa Emily Whiting, Dept. of Computer Science. Boston University, USA
- Prof. Emery Schubert, School of the Arts and Media. University of New South Wales, Australia
- Prof. Francesco Cutugno, Lab. of Intelligent Robotics and Advanced Cognitive Systems. University Federico II of Naple
- Dott. Claudio Zmarich, Institute of Cognitive Sciences and Technologies (ISTC) of the National Research Centre (CNR), Italy
- Prof. Gianluca Foresti, Artificial Vision and Real Time Systems Laboratory (AVIRES). University of Udine, Italy
- Prof. Anders Friberg, Music Acoustics Group. KTH of Stockholm, Sweden
- Prof. Marc Leman, Institute for Psychoacoustics and Electronic Music. University of Ghent, Belgium
- Prof. Antonio Camurri, InfoMus Lab. University of Genova, Italy
- Prof. Marco Cristani, Vision, Image Processing and Sound Group. University of Verona, Italy
- Prof. Giulio Rosati, Prof. Mechatronics Group. University of Padova, Italy

Posizioni precedenti

1997-2000	Borse di studio per la durata complessiva di 30 mesi per attività di ricerca su "Interactive systems for expressive music performance" all'Università di Padova. Supervisor: Prof. Giovanni De Poli.
2000	Borsa di studio di 4 mesi per attività di ricerca su "Study of new musical timbre". Supervisor: Prof. Giovanni De Poli.
2001-2002	Assegno di ricerca di 18 mesi per il progetto "Expressive audio for multimedia systems". Supervisor: Prof. Giovanni De Poli.
2003-2006	PhD student all'Università di Udine.
2008	Assegno di ricerca di 6 mesi per il progetto "Integrated systems for motor rehabilitation" all'Università di Padova. Supervisor: Prof. Guido Rossi and Prof. Giulio Rosati.

2009	Assegno di ricerca di 6 mesi per il progetto "Analysis, design, and develop of new methodologies for the study and fruition of musical text" all'Università di Padova. Supervisor: Prof. Nicola Orio.
2009	Assegno di ricerca di 12 mesi per il progetto "Study and development of algorithm for the recognitions of complex sound events and the automatic managing of digital libraries" all'Università di Udine. Supervisor: Dr. Sergio Canazza.
2010	Assegno di ricerca di 12 mesi per il progetto "Study and development of algorithm for the integration of audio and video sensors into a system for smart monitoring" all'Università di Udine. Supervisor: Prof. Gian Luca Foresti.

Attività di insegnamento

Ho tenuto corsi come docente ufficiale presso le università di Padova, Udine e Trieste, in dettaglio:

2020-2021	Fondamenti di informatica – Università di Padova (72 hours)
2020-2021	Sound design and music technology – Università di Padova (42 hours)
2019-2020	Principles of computational creativity – Scuola di dottorato in Mind, Brain, and Computer Science - Università di Padova (6 ore)
2019-2020	Fondamenti di informatica – Università di Padova (72 hours)
2018-2019	Informatica musicale – Università of Padova (48 hours)
2018-2019	Fondamenti di informatica – Università di Padova (72 hours)
2017-2018	Informatica musicale – Università of Padova (24 hours)
dal 2011 al 2017	Architettura degli elaboratori – Università of Padova (72 hours)
2007-2008	Sistemi di elaborazione delle informazioni – Università di Padova (38 hours)
2006-2007	Technologies for the audio restoration in multimedia documents – University of Udine (20 hours)
2006-2007	Acoustics and audio signal processing – University of Udine (30 hours)
2006-2007	Laboratory of sound and music computing – University of Udine (30 hours)
2003-2006	Laboratory of sound and music computin – University of Trieste. (20 hours)
2003-2004	Laboratory of sound and music computing – University of Udine (40 hours)

Partecipazione a dottorati

2017-2019	supervisore del dottorando Edoardo Micheloni presso il Dottorato in Information Engineering dell'Università di Padova
2018-today	supervisore del dottorando Filippo Carnovalini presso il Dottorato in Brain Mind and Computer Science, Università di Padova
2019-today	co-supervisore della dottoranda Sofia Russo presso il Dottorato in Brain Mind and Computer Science, Università di Padova
2019-today	Membro del Collegio di Dottorato in Brain Mind and Computer Science, Università di Padova
2019	Membro della commissione di dottorato in Informatica presso l'Università degli Studi di Milano del candidato Axel Chemla Romeu Santos

Attività di servizio

| 2016-today | Membro del Comitato scientifico per il corso in "General Course - Diritti umani e inclusione" dell'Università di Padova |
| 2011-2019 | Membro della commissione didattica della LM in Ingegneria Informatica e referente per i piani di studio |

Progetti di ricerca

Sono stato responsabile scientifico dei seguenti progetti di ricerca, portati avanti con fondi pubblici o con partner industriali:

2020-2021	ArTracker (IoT per il tracciamento il monitoraggio di opere d'arte). 2105-0051-1463-2019 - POR FSE 2014-2020 Regione Veneto.
2017-2018	Design and development of an algorithm for multi-pitch detection. Funded by Musa s.r.l.
2016	Design and development of algorithms for the sonorisation of images. Funded by Microtec s.r.l.
2015-2016	AVATAR (Smart avatar for the interactive access to literacy cultural heritage) 2105-90-2121-2015 - ESF Veneto Region dgr 1148.
2014-2015	SAMIP (Systems for the mobility aid of people with visual impairment) 2105/201/13/1148/2013 - ESF Veneto Region dgr 1148.
2014-2015	TABLE (Technological Augmented Bilingual Learning Environments) 2105/201/29/1148/2013 - ESF Veneto Region dgr 1148.
2012	Design and development of a system based on advanced acoustic feedback and movement tracking. Funded by Rittmeyer Institute for the Blind.
2002-2003	Hierarchical model for extracting high level information from multimedia contents. Funded by the University of Padova.

Inoltre, sono stato collaboratore di ricerca nei seguenti progetti nazionali e internazionali:

2014-2015	Archaeology & Virtual Acoustics. A pan flute from ancient Egypt. CPDA133925.
2011-2013	OPENSoundS - Peer Education on the internet for social sounds. EU-LLP Leonardo da Vinci Program.
2010-1012	DREAM - Digital Reworking/reappropriation of ElectroAcoustic Music. EA-CEA 2010-1174/001-001
2009-2012	SRSnet: Smart Resource-Aware Multi-Sensor Network. Interreg IV research project funded by the European Community
2009-2010	ADVISOR II. National project PRN 47-07
2009-2010	REVIVAL: REstauro dell'archivio VIcentini di Verona e sua accessibilità come Audio e-Library. National project
2005-2006	Preservation and On-line Fruition of the Audio Documents from the European Archives of Ethnic Music. Culture 2000 (Agreement No 2005 - 0737/001-001 CLT CA12)
2006	ARCHIMEDES - ARCHIviazione e Modelli per l'Editoria, per i Documenti musicali E Sonori. National project
2004-2007	Preservation and restoration of the magnetic tapes of electro-acoustic music by Luigi Nono. National project funded by BMG-Ricordi
2004-2008	Enactive Interface. FP6-EU Network of Excellence IST-1-002114
2000-2003	MEGA – "Multisensory Expressive Gesture Analysis". IST-1999-20410

Premi, riconoscimenti e incarichi in associazioni scientifiche

2020	Best paper award at the 22nd International conference on Human-Computer Interaction (HCII2020), July 19-24, 2020.
dal 2018	Membro del comitato direttivo del Kansei Engineering European Group
2017	Best paper award a Goodtechs 2017 - - 3rd EAI International Conference on Smart Objects and Technologies for Social Good, Nov. 29-30 - Pisa, Italy
2012	Start Cup Veneto 2012. Finalista (terzo posto)
2011	Vincitore della fase finale (stage II) di Rencon 2011. Rencon ("Rendering contest"), il più importante *contest* internazionale tra algoritmi per l'esecuzione automatica della musica

2006   Start Cup FVG 2006. Vincitore del premio Innovation award con il progetto ARCHIMEDES

Organizzazione di conferenze e attività di referaggio

Sono stato chair o co-chair dei seguenti eventi scientifici:

2021   Audio Mostly 2021. Trento, Italy (paper chair)

2020   Special session on Serious Games to improve the quality of life – Goodtechs 2020. Antwerp, Belgium

2019   Special session on Serious Games to improve the quality of life – Goodtechs 2019. Valencia, Spain

2018   Special session on Serious Games to improve the quality of life – Goodtechs 2018. Bologna, Italy

2014   International Workshop on Computer and Robotic Systems for Automatic Music Performance (SAMP14). Venice, Italy

2013   New technologies for the diagnosis and intervention in language disorders. Piazzola sul Brenta, Italy

2012   From musical automa to computers that play music expressively. Piazzola sul Brenta, Italy

Sono stato nei comitati scientifici o di programma di:

2021   9th Int. Conf on Culture and computing.

2020   8th Int. Conf on Culture and computing.

2016   13th Int. Conf. on Advances in Computer Entertainment Technology (ACE2016). Osaka, Japan.

2012-today   XIX Colloquio di Informatica Musicale. Trieste, Italy

2011   Musical Performance Rendering Competition for computer systems (Rencon 2011). Padova, Italy

2011   International Conference on Sound and Music Computing. Padova, Italy

Ho effettuato attività di editor e reviewer per:
- Entertainment Computing (Elsevier) - guest editor,
- IEEE Transactions on Audio, Speech and Language Processing - reviewer,
- IEEE Transactions on Affective Computing - reviewer,
- IEEE Transactions on Multimedia - reviewer,
- Signal Processing - reviewer,
- International Journal on Digital Libraries - reviewer,
- Journal of New Music Research - reviewer,
- Human Movement Science - reviewer,
- ACM/IEEE International Conference on Distributed Smart Cameras - reviewer,
- IEEE International Conference on Advanced Video and Signal Based Surveillance - reviewer,
- International Computer Music Conference - reviewer,
- Sound and Music Computing Conference - reviewer,
- Int. Symposium on Music Information Retrieval - reviewer,
- Int. Conf. on Advances in Computer Entertainment Technology - reviewer.

Trasferimento tecnologico

2013-today   - Fondatore e vice-presidente di Audio Innova s.r.l., spin-off dell'Università di Padova

2016   - International patent: Method and device for the structural control of wooden poles. (Pub. No.: WO/2016/120774, International Application No.: PCT/IB2016/050352, Publication Date: 04.08.2016, International Filing Date: 25.01.2016)

Rivista con revisione tra pari

[1] Filippo Carnovalini and Antonio Rodà. Computational creativity and music generation systems: An introduction to the state of the art. *Frontiers on Artificial Intelligence*, 3:14, 2020.

[2] E. Micheloni, M. Tramarin, A. Rodà, and F. Chiaravalli. Playing to play: a piano-based user interface for music education video-games. *Multimedia Tools and Applications*, 78(10):13713–13730, 2019.

[3] A. Origlia, F. Cutugno, A. Rodà, P. Cosi, and C. Zmarich. Fantasia: a framework for advanced natural tools and applications in social, interactive approaches. *Multimedia Tools and Applications*, 78(10):13613–13648, 2019.

[4] E. Schubert, M. Murari, A. Rodà, S. Canazza, O. Da Pos, and G. De Poli. Verbal and cross-modal ratings of music: Validation and application of an icon-based rating scale. *i-Perception*, 10(3), 2019.

[5] Marcella Mandanici, Antonio Rodà, and Marco Ricca. The task of walking straight as an interactive serious game for blind children. *EAI Endorsed Trans. Serious Games*, 5(16):e4, 2018.

[6] M. Mandanici, A. Rodà, S. Canazza, and G. Cavagnoli. Following the cuckoo sound: A responsive floor to train blind children to avoid veering. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, LNICST*, 233:11–20, 2018.

[7] M. Mandanici, F. Altieri, A. Rodà, and S. Canazza. Inclusive sound and music serious games in a large-scale responsive environment. *British Journal of Educational Technology*, 49(4):620–635, 2018.

[8] M. Murari, E. Schubert, A. Rodà, O. Da Pos, and G. De Poli. How >:(is bizet? icon ratings of music. *Psychology of Music*, 46(5):749–760, 2018.

[9] M. Mandanici, A. Rodà, and S. Canazza. Bodily interactions in motion-based music applications. *Human Technology*, 13(1):82–108, 2017.

[10] E. Schubert, S. Canazza, G. De Poli, and A. Rodà. Algorithms can mimic human piano performance: The deep blues of music. *Journal of New Music Research*, 46(2):175–186, 2017.

[11] L. Turchet and A. Rodà. Emotion rendering in auditory simulations of imagined walking styles. *IEEE Transactions on Affective Computing*, 8(2):241–253, 2017.

[12] L. Turchet, D. Zanotto, S. Minto, A. Roda, and S.K. Agrawal. Emotion rendering in plantar vibro-tactile simulations of imagined walking styles. *IEEE Transactions on Affective Computing*, 8(3):340–354, 2017.

[13] M. Mandanici, A. Roda, and S. Canazza. The harmonic walk: An interactive physical environment to learn tonal melody accompaniment. *Advances in Multimedia*, 2016, 2016.

[14] S. Canazza, G. De Poli, and A. Rodà. Caro 2.0: An interactive system for expressive music rendering. *Advances in Human-Computer Interaction*, 2015, 2015.

[15] M. Murari, A. Rodà, S. Canazza, G. De Poli, and O. Da Pos. Is vivaldi smooth and takete? non-verbal sensory scales for describing music qualities. *Journal of New Music Research*, 44(4):359–372, 2015.

[16] G. De Poli, S. Canazza, A. Rodà, and E. Schubert. The role of individual difference in judging expressiveness of computer-assisted music performances by experts. *ACM Transactions on Applied Perception*, 11(4), 2014.

[17] A. Rodà, S. Canazza, and G. De Poli. Clustering affective qualities of classical music: Beyond the valence-arousal plane. *IEEE Transactions on Affective Computing*, 5(4):364–376, 2014.

[18] F. Bressan, A. Rodà, S. Canazza, F. Fontana, and R. Bertani. The safeguard of audio collections: A computer science based approach to quality control - the case of the sound archive of the arena di verona. *Advances in Multimedia*, 2013, 2013.

[19] F. Bressan, S. Canazza, and A. Rodá. Interactive multimedia installations: Towards a model for preservation. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, LNICST*, 116:81–88, 2013.

[20] F. Bressan, S. Canazza, A. Rodà, R. Bertani, and F. Fontana. Pavarotti sings again: A multidisciplinary approach to the active preservation of the audio collection at the arena di verona. *Journal of New Music Research*, 42(4):364–380, 2013.

[21] G. Rosati, A. Rodà, F. Avanzini, and S. Masiero. On the role of auditory feedback in robot-assisted movement training after stroke: Review of the literature. *Computational Intelligence and Neuroscience*, 2013, 2013.

[22] S. Zanolla, S. Canazza, A. Rodà, A. Camurri, and G. Volpe. Entertaining listening by means of the stanza logo-motoria: An interactive multimodal environment. *Entertainment Computing*, 4(3):213–220, 2013.

[23] S. Zanolla, A. Rodà, F. Romano, F. Scattolin, G.L. Foresti, S. Canazza, C. Canepa, P. Coletta, and G. Volpe. Teaching by means of a technologically augmented environment: The stanza logo-motoria. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering*, 78 LNICST:231–235, 2012.

[24] S. Canazza, G. De Poli, and A. Rodà. Confrontare i sistemi informatici per l'esecuzione automatica. un caso significativo: il rendering contest. *Rivista di Analisi e Teoria Musicale*, XVII(1-2):219–234, 2011.

[25] I. Visentini, A. Rodà, S. Canazza, and L. Snidaro. Audio-video analysis of musical expressive intentions. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 6979 LNCS(PART 2):219–228, 2011.

[26] A. Rodà. Perceptual tests and feature extraction: Toward a novel methodology for the assessment of the digitization of old ethnic music records. *Signal Processing*, 90(4):1000–1007, 2010.

[27] F.B. Baraldi, G.D. Poli, and A. Rodà. Communicating expressive intentions with a single piano note. *Journal of New Music Research*, 35(3):197–210, 2006.

[28] S. Canazza, G. De Poli, C. Drioli, A. Rodà, and A. Vidolin. Modeling and control of expressiveness in music performance. *Proceedings of the IEEE*, 92(4):686–701, 2004.

[29] S. Canazza, G. Poli, A. Rodà, and A. Vidolin. An abstract control space for communication of sensory expressive intentions in music performance. *International Journal of Phytoremediation*, 21(1):281–294, 2003.

[30] S. Canazza, G. De Poli, and A. Rodà. Analysis of expressive intentions in piano performance. *Journal of ITC Sangeet Research Academy*, 16:23–62, October 2002.

[31] S. Canazza, G. De Poli, C. Drioli, A. Rodà, and A. Vidolin. Audio morphing different expressive intentions for multimedia systems. *IEEE Multimedia*, 7(3):79–82, 2000.

[32] S. Canazza and A. Rodà. Analisi acustiche e percettive dell'interpretazione musicale. *Bollettino di Analisi e Teoria Musicale GATM*, 6(1):61–82, 1999.

[33] G. De Poli, A. Rodà, and A. Vidolin. Note-by-note analysis of the influence of expressive intentions and musical structure in violin performance. *Journal of New Music Research*, 27(3):293–321, 1998.

Capitolo di libro

[34] M. Mandanici and A. Rodà. *Large-Scale Interactive Environments for Mobility Training and Experience Sharing of Blind Children*. EAI/Springer Innovations in Communication and Computing. 2020.

[35] G. De Poli, M. Murari, S. Canazza, A. Rodá, and E. Schubert. *Beyond emotion: Multi-sensory responses to musical expression.* 2017.

[36] S. Zanolla, A. Rodà, S. Canazza, and G.L. Foresti. *Learning by means of an interactive multimodal environment.* 2013.

[37] Nicola Scattolin, Serena Zanolla, Antonio Rodà, and Sergio Canazza. Soundingarm assisted representation of a map. In T. Bosse, D.J. Cook, M. Neerincx, and F. Sadri, editors, *Human Aspects in Ambient Intelligence: Contemporary Challenges and Solutions*, volume VIII. Atlantis Press, 2013.

[38] F. Avanzini, S. Spagnol, A. De Götzen, and A Rodà. Designing interactive sound for neuro-rehabilitation systems. In K. Franinovic and S. Serfain, editors, *Sonic Interaction Design*. MIT Press, Cambridge, MA, 2013.

[39] Antonio Rodà. Evolution of the equipments of the studio di fonologia musicale of milan. In J. Dack and M. M. Novati, editors, *The Studio di Fonologia: Update 2008-2012*, pages 33–81. Universal Music Publications, 2012.

[40] S. Canazza, A. Rodà, G.D. Poli, and A. Vidolin. *Expressiveness in music performance:Analysis, models, mapping, encoding.* 2012.

Atti di convegno

[41] M. Murari, A. Chmiel, E. Tiepolo, J. D. Zhang, S. Canazza, A. Rodà, and E. Schubert. Key clarity is blue, relaxed, and maluma: Machine learning used to discover cross-modal connections between sensory items and the music they spontaneously evoke. volume 1256 AISC of *Advances in Intelligent Systems and Computing*, pages 214–223, 2020.

[42] Z. Sun, A. Rodà, E. Whiting, E. Faresin, and G. Salemi. 3d virtual reconstruction and sound simulation of an ancient roman brass musical instrument. volume 12215 LNCS of *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, pages 267–280, 2020.

[43] V. N. Vitale, M. Olivieri, A. Origlia, N. Pretto, A. Rodà, and F. Cutugno. Acoustic experiences for cultural heritage sites: A pilot experiment on spontaneous visitors' interest. volume 12215 LNCS of *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, pages 300–311, 2020.

[44] F. Carnovalini and A. Roda. A multilayered approach to automatic music generation and expressive performance. pages 41–48, 2019.

[45] F. Carnovalini, A. Rodà, and P. Caneva. A musical serious game for social interaction through augmented rhythmic improvisation. pages 130–135, 2019.

[46] G. Pitteri, E. Micheloni, A. Rodà, C. Fantozzi, and N. Orio. Listen by looking: A mobile application for augmented fruition of live music and interactive learning. pages 136–141, 2019.

[47] A. Origlia, A. Morotti, F. Altieri, C. Zmarich, P. Cosi, G. Buscato, and A. Rodá. Evaluating a multi-avatar game for speech therapy applications. pages 190–195, 2018.

[48] F. Simonetta, N. Orio, F. Carnovalini, and A. Rodà. Symbolic music similarity through a graph-based representation. 2018.

[49] E. Micheloni, M. Mandanici, A. Rodà, and S. Canazza. Interactive painting sonification using a sensor-equipped runway. pages 63–70, 2017.

[50] A. Origlia, P. Cosi, C. Zmarich, and A. Rodà. A dialogue-based software architecture for gamified discrimination tests. volume 1956, 2017.

[51] F. Avanzini, S. Canazza, G. De Poli, C. Fantozzi, E. Micheloni, N. Pretto, A. Rodà, S. Gasparotto, and G. Salemi. Virtual reconstruction of an ancient greek pan flute. pages 41–46, 2016.

[52] F. Avanzini, S. Canazza, G. De Poli, C. Fantozzi, N. Pretto, A. Rodà, I. Angelini, C. Bettineschi, G. Deotto, E. Faresin, A. Menegazzi, G. Molin, G. Salemi, and P. Zanovello. Archaeology and virtual acoustics. a pan flute from ancient egypt. pages 31–36, 2015.

[53] M. Mandanici, A. Rodá, and S. Canazza. A conceptual framework for motion based music applications. 2015.

[54] M. Mandanici, A. Rodà, S. Canazza, and F. Altieri. The "harmonic walk" and enactive knowledge: An assessment report. pages 221–227, 2015.

[55] M. Murari, A. Rodà, O. Da Pos, E. Schubert, S. Canazza, and G. De Poli. Mozart is still blue: A comparison of sensory and verbal scales to describe qualities in music. pages 351–358, 2015.

[56] M. Mandanici, A. Rodà, and S. Canazza. The "harmonic walk": An interactive educational environment to discover musical chords. pages 1766–1773, 2014.

[57] M. Murari, A. Rodà, O. Da Pos, S. Canazza, G. De Poli, and M. Sandri. How blue is mozart? non verbal sensory scales for describing music qualities. pages 209–216, 2014.

[58] E. Schubert, G. De Poli, A. Roda, and S. Canazza. Music systemisers and music empathisers - do they rate expressiveness of computer generated performances the same? pages 223–227, 2014.

[59] Sergio Canazza, G. De Poli, and A. Rodà. How do people assess computer generated expressive music performances? In R. Bresin, editor, *Proceedings of the Sound and Music Computing Conference 2013, SMC 2013, Stockholm, Sweden*, pages 353–359, 2013.

[60] Nicola Scattolin, Serena Zanolla, A. Rodà, and Sergio Canazza. Soundingarm: Rappresentazione acustica di una mappa spaziale. In *Proceedings of the 19th International Colloquium on Music Informatics (Colloqui di Informatica Musicale, CIM) "Sonic Synesthesia"*, pages 80–87, 2012.

[61] S. Canazza, F. Bressan, A. Rodà, and D. Salvati. Preservation and restoration of ethnic music audio archives. In *Proc. of 5th International Congress on "Science and technology for the safeguard of cultural heritage in the mediterranean basin", Istanbul, Turkey, 22-25 November 2011*, volume IV, pages 94–100, 2012.

[62] Antonio Rodà. Conservazione e fruizione della liuteria elettronica: il caso dello studio di fonologia della rai di milano. In *Atti e memorie dell'Accademia Galileiana di scienze, lettere ed arti in Padova: Memorie della classe di scienze matematiche fisiche e naturali*, volume CXXIV - Parte II, pages 23–40, 2012.

[63] F. Bressan, A. Rodà, S. Canazza, and F. Fontana. Toward an informed procedural approach to the preservation of audio documents: The case of the "fondazione arena di verona" archive. In S. Lira, R. Amoeda, and C. Pinheiro, editors, *Proceedings of Sharing Cultures 2011 - 2nd International Conference on Intangible Heritage*, pages 177–185, Tomar (Portugal), July 3-6 2011. Green Lines Institute.

[64] S. Canazza, F. Avanzini, M.M. Novati, and A. Rodà. Active preservation of electrophone musical instruments. the case of the "liettizzatore" of "studio di fonologia musicale" (rai, milano). 2011.

[65] S. Canazza, G.D. Poli, and A. Rodà. Emotional response to major mode musical pieces: Score-dependent perceptual and acoustic analysis. 2011.

[66] A. Rodà and C. Micheloni. Tracking sound sources by means of hmm. pages 83–88, 2011.

[67] D. Salvati, S. Canazza, and A. Rodà. Sound spatialization control by means of acoustic source localization system. 2011.

[68] D. Salvati, A. Rodà, S. Canazza, and G.L. Foresti. Multiple acoustic sources localization using incident signal power comparison. pages 77–82, 2011.

[69] D. Salvati, S. Canazza, and A. Rodà. A sound localization based interface for real-time control of audio processing. pages 177–184, 2011.

[70] S. Zanolla, A. Rodá, F. Romano, F. Scattolin, G.L. Foresti, and S. Canazza. When sound teaches. 2011.

[71] S. Canazza, F. Avanzini, M. M. Novati, and A. Rodà. A music bar for active listeners: An example of virtual electronic lutherie for a history 50 years long. In A. Valle and S. Bassanese, editors, *Atti del XVIII CIM - Colloquio di Informatica Musicale. Torino – Cuneo, 5–8 Ottobre 2010*, number 9788890341311, pages 20–26. AIMI - Associazione Informatica Musicale Italiana, 2011.

[72] S. Canazza, A. Rodà, and D. Salvati. A microphone array approach for browsable soundscapes. In A. Valle and S. Bassanese, editors, *Atti del XVIII CIM - Colloquio di Informatica Musicale. Torino – Cuneo, 5–8 Ottobre 2010*, number 9788890341311, pages 107–114. AIMI - Associazione Informatica Musicale Italiana, 2011.

[73] S. Zanolla, A. Camurri, S. Canazza, C. Canepa, A. Rodà, G. Volpe, and G. L. Foresti. Un ambiente didattico aumentato tecnologicamente. In A. Valle and S. Bassanese, editors, *Atti del XVIII CIM - Colloquio di Informatica Musicale. Torino – Cuneo, 5–8 Ottobre 2010*, number 9788890341311, pages 134–142. AIMI - Associazione Informatica Musicale Italiana, 2011.

[74] S. Canazza, A. Rodà, L. Snidaro, and I. Visentini. Ensemble methods for musical expressive intention recognition. In A. Valle and S. Bassanese, editors, *Atti del XVIII CIM - Colloquio di Informatica Musicale. Torino – Cuneo, 5–8 Ottobre 2010*, number 9788890341311, pages 176–179. AIMI - Associazione Informatica Musicale Italiana, 2011.

[75] A. Boem, S. Canazza, and A. Rodà. Progettazione e realizzazione di un auditory display per la riabilitazione motoria. In A. Valle and S. Bassanese, editors, *Atti del XVIII CIM - Colloquio di Informatica Musicale. Torino – Cuneo, 5–8 Ottobre 2010*, number 9788890341311, pages 186–188. AIMI - Associazione Informatica Musicale Italiana, 2011.

[76] S. Canazza, A. Rodà, and G. De Poli. On the espressive gestures: looking for common traits between musical and physical domain. In *Proc. of Kansei Engineering and Emotion Research*, pages 1589–1597, Paris, March 2010.

[77] A. Camurri, G. Volpe, S. Canazza, C. Canepa, A. Rodá, S. Zanolla, and G.L. Foresti. The 'stanza logo-motoria': An interactive environment for learning and communication. page 66, 2010.

[78] M. Cristani, A. Pesarin, C. Drioli, V. Murino, A. Rodà, M. Grapulin, and N. Sebe. Toward an automatically generated soundtrack from low-level cross-modal correlations for automotive scenarios. pages 551–559, 2010.

[79] D. Salvati, A. Rodà, S. Canazza, and G.L. Foresti. A real-time system for multiple acoustic sources localization based on isp comparison. 2010.

[80] F. Bressan, S. Canazza, A. Rodà, and N. Orio. Preserving today for tomorrow: a case study of an archive of interactive music installations. In N. Orio, A. Rauber, and D. Rizo, editors, *Proc. of the Workshop on Exploring Musical Information Spaces*, pages 24–29, Corfu, Greece, October 2009.

[81] G. De Poli, A. Rodà, and L. Mion. A dynamic analogy between integro-differential operators and musical expressiveness. pages 89–94, 2009.

[82] N. Orio and A. Rodà. A measure of melodic similarity based on a graph representation of the music structure. pages 543–548, 2009.

[83] A. Rodà and S. Canazza. Virtual performance, actual gesture: A web 2.0 system for expressive performance of music contents. pages 474–480, 2009.

[84] D. Fenza, L. Mion, S. Canazza, and A. Rodà. Physical movement and musical gestures: A multilevel mapping strategy. page 27, 2005.

[85] S. Canazza, A. Rodà, P. Zanon, and A. Friberg. Espressive director: a system for the real-time control of music performance synthesis. In *Proc. of the Stockholm Music Acoustics Conference*, pages 521–524, Stockholm, Sweden, August 2003.

[86] S. Canazza, G. De Poli, L. Mion, A. Rodà, A. Vidolin, and P. Zanon. Espressive classifier at csc: an overview of the main research streams. In *Proc. of XIV Colloquium on Musical Informatics*, pages 64–68, Firenze, Italy, 2003.

[87] S. Canazza, G. De Poli, A. Rodà, and G. Soleni. Real time analysis of expressive contents in piano performances. In *Proc. of International Computer Music Conference*, pages 414–418, Goteborg, Sweden, September 2002.

[88] S. Canazza, G. De Poli, A. Rodà, A. Vidolin, and P. Zanon. Kinematics-energy space for expressive interaction in music performance. In *Proc. of MOSART, Workshop on current research directions in Computer Music*, pages 35–40, Barcelona, November 2001.

[89] G. De Poli, S. Canazza, C. Drioli, A. Rodà, A. Vidolin, and P. Zanon. Analysis and modeling of expressive intentions in music performance. In *Proc. of International Workshop on Human Supervision and Control in Engineering and Music*, Kassel, Germany, September 2001.

[90] S. Canazza, G. De Poli, C. Drioli, A. Rodà, and A. Vidolin. Expressive morphing for interactive performance of musical scores. pages 116–122, 2001.

[91] S. Canazza, G. D'Arduini, and A. Rodà. Analysis of the influence of expressive intention in piano performance of classical music. In *Proc. of XIII Colloquium on Musical Informatics*, pages 53–58, L'Aquila, September 2000.

[92] S. Canazza, A. Rodà, and P. Zanon. A method for an objective comparison of rule systems for musical performance. In *Proc. of XIII Colloquium on Musical Informatics*, pages 193–196, L'Aquila, September 2000.

[93] S. Canazza, F. Cestonaro, C. Drioli, G. De Poli, and A. Rodà. Symbolic and audio processing to change the expressive intention of a recorded music performance. In *Proc. of XIII Colloquium on Musical Informatics*, pages 71–74, L'Aquila, September 2000.

[94] S. Canazza, G. De Poli, C. Drioli, A. Rodà, and F. Zamperini. Real-time morphing among different expressive intentions in audio playback. In *Proc. of International Computer Music Conference*, pages 356–359, Berlin, August-September 2000.

[95] S. Canazza, G. De Poli, R. Di Federico, C. Drioli, and A. Rodà. Expressive processing of audio and midi performances in real time. In *Proc. of International Computer Music Conference*, pages 425–428, Beijing, China, October 1999.

[96] S. Canazza, A. Rodà, and N. Orio. A parametric model of expressiveness in musical performance based on perceptual and acoustic analyses. In *Proc. of International Computer Music Conference*, pages 379–382, Beijing, China, October 1999.

[97] A. Roda and S. Canazza. Adding expressiveness in musical performance in real time. volume 2, pages 1026–1027, 1999.

[98] S. Canazza and A. Rodà. Adding expressiveness in musical performance in real time. In *Proc. of Convention on Artificial Intelligence and Music Creativity*, pages 134–139, Edinburgh, 1999.

[99] S. Canazza, G. De Poli, R. Di Federico, C. Drioli, and A. Rodà. Symbolic and audio processing to change the expressive intention of a recorded music performance. In *Proc. of the 2nd COST Workshop on Digital Audio Effects (DAFX99)*, pages 1–4, Trondheim, 1999. NTNU.

[100] S. Canazza, G. De Poli, A. Rodà, and A. Vidolin. Analysis and synthesis of expressive intentions in musical performance. In *Proc. of the International Computer Music Conference*, pages 113–120, Tessaloniki, Grecia, 1997.