

## **ALLEGATO A**

UNIVERSITÀ DEGLI STUDI DI MILANO

Procedura di selezione per la chiamata a professore di I fascia da ricoprire ai sensi dell'art. 18, comma 1, della Legge n. 240/2010 per il settore concorsuale 01/B1, (settore scientifico-disciplinare INF/01) presso il Dipartimento di Matematica e Informatica  
(avviso bando pubblicato sulla G.U. n. 26 del 04/04/2023 - Codice concorso 5282)

## **Davide Rocchesso**

### **CURRICULUM VITAE**

#### **INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)**

COGNOME	ROCCHESSE
NOME	DAVIDE
DATA DI NASCITA	28, 07, 1967

#### **TITOLI**

##### **TITOLO DI STUDIO**

Laurea in Ingegneria Elettronica, Università di Padova, 17.12.1992, con voto 110/110 e lode.

##### **TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO**

Dottorato in Ingegneria Informatica e Elettronica Industriali, Università di Padova, discusso a Milano il 26 novembre 1996. Tutor: Giovanni De Poli.

#### **ATTIVITÀ DIDATTICA**

##### **INSEGNAMENTI E MODULI**

Anni Accademici: 2022-23; 2021-22; 2020-21; 2019-20 (x 4 anni):

. Programmazione e Laboratorio – Modulo di Strutture Dati Astratte (6 CFU, INF-01), Corso di Laurea in Informatica, Università di Palermo;

. Multisensory Data Exploration (6 CFU, INF-01), Corso di Laurea Magistrale in Informatica, Università di Palermo;

Anni Accademici: 2018-19; 2017-18 (x 2 anni):

- . Programmazione e Laboratorio – Modulo di Strutture Dati Astratte (6 CFU, INF-01), Corso di Laurea in Informatica, Università di Palermo;
- . Multisensory Data Exploration and Analytics (6 CFU, INF-01), Corso di Laurea Magistrale in Informatica, Università di Palermo;

Anno Accademico: 2016-17:

- . Programmazione e Laboratorio – Modulo di Strutture Dati Astratte (6 CFU, INF-01), Corso di Laurea in Informatica, Università di Palermo;
- . Laboratorio di Algoritmi (6 CFU, INF-01), Corso di Laurea Magistrale in Informatica, Università di Palermo;

Anni Accademici 2015-16; 2014-15; 2013-14 (x 3 anni):

- . Fondamenti di Informatica (6 CFU, INF-01), Corso di Laurea in Design della Moda e Arti Multimediali, Università Iuav di Venezia;
- . Tecnologie Digitali (6 CFU, INF-01), Corso di Laurea Magistrale in Arti Visive e Moda, Università Iuav di Venezia.

Anni Accademici 2012-13; 2011-12; 2010-11; 2009-10 (x 4 anni)

- . Informatica (6 CFU, INF-01), Corso di Laurea in Design della Moda, Arti Visive, Teatro, Università Iuav di Venezia;
- . Tecnologie Digitali (6 CFU, INF-01), Corso di Laurea Magistrale in Design, Università Iuav di Venezia.

Anni Accademici 2008-09; 2007-08 (x 2 anni):

- . Informatica (4 CFU, INF-01), Corso di Laurea in Arti Visive e dello Spettacolo, Università Iuav di Venezia;
- . Programmazione di Artefatti Interattivi (6 CFU, INF-01), Corso di Laurea Specialistica in Comunicazioni Visive e Multimediali, Università Iuav di Venezia.

Anni Accademico 2006-07:

- . Elaborazione Digitale di Immagini e Suoni (5 CFU, INF-01), Corso di Laurea in Informatica Multimediale, Università di Verona;
- . Complementi di Interazione Uomo-Macchina (5 CFU, INF-01), Corso di Laurea Specialistica in Sistemi Intelligenti e Multimediali, Università di Verona;
- . Informatica (4 CFU, INF-01), Corso di Laurea in Arti Visive e dello Spettacolo, Università Iuav di Venezia;
- . Programmazione di Artefatti Interattivi (6 CFU, INF-01), Corso di Laurea Specialistica in Comunicazioni Visive e Multimediali, Università Iuav di Venezia.

Anni Accademici 2005-06, 2004-05 (x 2 anni):

- . Elaborazione Digitale di Immagini e Suoni (5 CFU, INF-01), Corso di Laurea in Informatica Multimediale, Università di Verona;
- . Complementi di Interazione Uomo-Macchina (5 CFU, INF-01), Corso di Laurea Specialistica in Sistemi Intelligenti e Multimediali, Università di Verona;
- . Informatica (4 CFU, INF-01), Corso di Laurea in Arti Visive e dello Spettacolo, Università Iuav di Venezia;

Anni Accademici 2003-04, 2002-03 (x 2 anni):

- . Elaborazione Digitale di Immagini e Suoni (5 CFU, INF-01), Corso di Laurea in Informatica Multimediale, Università di Verona;
- . Complementi di Interazione Uomo-Macchina (5 CFU, INF-01), Corso di Laurea Specialistica in Sistemi Intelligenti e Multimediali, Università di Verona;

Anno Accademico 2001-02:

. Sistemi di Elaborazione dell'Informazione: Elaborazione del Suono (5 CFU, ING-INF/05), Corso di Laurea in Informatica, Università di Verona;

Anni Accademici 2000-01, 1999-00 (x 2 anni):

. Sistemi di Elaborazione dell'Informazione: Elaborazione del Suono (5 CFU, ING-INF/05), Corso di Laurea in Informatica, Università di Verona;

. Laboratorio di Sistemi Operativi, Corso di Laurea in Informatica (5 CFU, ING-INF/05), Università di Verona.

## **ATTIVITÀ DI DIDATTICA INTEGRATIVA E DI SERVIZIO AGLI STUDENTI**

### **ATTIVITÀ DI RELATORE DI ELABORATI DI LAUREA, DI TESI DI LAUREA MAGISTRALE, DI TESI DI DOTTORATO E DI TESI DI SPECIALIZZAZIONE**

Relatore di due Tesi di Laurea Magistrale in Informatica, Università di Palermo (2019 e 2021);

Relatore di alcune Tesi di Laurea Magistrale in Disegno Industriale del Prodotto e di Laurea Magistrale in Comunicazioni Visive e Multimediali, Università luav di Venezia. Relatore di alcune Tesi di Laurea in Arti Visive e dello Spettacolo, Università luav di Venezia (2006-2016);

Relatore e co-relatore di diciotto Tesi di Laurea Magistrale in Informatica, Università di Verona (2000-04);

Co-relatore di nove Tesi di Laurea in Ingegneria Elettronica, Università di Padova (1992-98);

Co-relatore: Master Thesis of Gerda Strobl, Technische Universitat Graz, 2005-06;

Relatore (2017): PhD student Alan Del Piccolo, PhD program in Computer Science of the University of Venice "Ca' Foscari";

Relatore (2015): PhD student Serena Cangiano, PhD program in Design Sciences of the luav University of Venice;

Co-relatore (2013): PhD student Sara Adhitya, Dottorato di Ricerca Europeo di Architettura e Urbanistica "Quality of design", luav University of Venice;

Relatore (2014): PhD student Maddalena Mometti, PhD program in Design Sciences of the luav University of Venice;

Relatore (2013): PhD student Francesco Bergamo, PhD program in Design Sciences of the luav University of Venice;

Relatore (2012): PhD student Stefano Delle Monache, PhD program in Design Sciences of the luav University of Venice;

Relatore (2009): PhD student Delphine Devallez, PhD program in Computer Science of the University of Verona;

Relatore (2007): PhD student Antonio De Sena, PhD program in Computer Science of the University of Verona;

Relatore (2006): PhD student Amalia De Gotzen, PhD program in Computer Science of the University of Verona;

Relatore (2004): PhD student Matthias Rath, PhD program in Computer Science of the University of Verona;

Relatore (2004): PhD student Laura Ottaviani, PhD program in Computer Science of the University of Verona;

Relatore (2003): PhD student Federico Fontana, PhD program in Computer Science of the University of Verona;

#### **ATTIVITÀ DI TUTORATO DEGLI STUDENTI DI CORSI DI LAUREA E DI LAUREA MAGISTRALE E DI TUTORATO DI DOTTORANDI DI RICERCA**

Tutor (2014-17) of the PhD student Alan Del Piccolo, PhD program in Computer Science of the University of Venice “Ca’ Foscari”;

Tutor (2012-15) of the PhD student Serena Cangiano, PhD program in Design Sciences of the Iuav University of Venice;

Co-tutor (2010-13) of the doctoral student Sara Adhitya, Dottorato di Ricerca Europeo di Architettura e Urbanistica “Quality of design”, Iuav University of Venice;

Tutor (2011-14) of the PhD student Maddalena Mometti, PhD program in Design Sciences of the Iuav University of Venice;

Tutor (2010-13) of the PhD student Francesco Bergamo, PhD program in Design Sciences of the Iuav University of Venice;

Tutor (2009-12) of the PhD student Stefano Delle Monache, PhD program in Design Sciences of the Iuav University of Venice;

Tutor (2006-09) of the PhD student Delphine Devallez, PhD program in Computer Science of the University of Verona;

Tutor (2004-07) of the PhD student Antonio De Sena, PhD program in Computer Science of the University of Verona;

Tutor (2003-06) of the PhD student Amalia De Gotzen, PhD program in Computer Science of the University of Verona;

Tutor (2001-04) of the PhD student Matthias Rath, PhD program in Computer Science of the University of Verona;

Tutor (2001-04) of the PhD student Laura Ottaviani, PhD program in Computer Science of the University of Verona;

Opponent in the defense of the PhD candidate Tero Tolonen, Helsinki University of Technology, Finland, 2000;

Tutor (2000-03) of the PhD student Federico Fontana, PhD program in Computer Science of the University of Verona;

## SEMINARI

Seminar QAFx - Representing and processing sound with quanta, Queen Mary University London, Centre for Digital Music, Centre for Doctoral training in AI and Music, January 23, 2023;

Seminar Quanta of Sound in Superposition - Representing, Sketching, and Designing Sound, Delft University of Technology, Perceptual Intelligence Lab, December 14, 2021;

Laser Talk Nomad on Designing Sound with Vocal Primitives, University of Palermo, November 7, 2019;

Seminar ZANG TUMB TUUUM - Designing Sound with Vocal Primitives, Queen Mary University London, School of Electronic Engineering and Computer Science, August 7, 2019;

Open lecture ZANG TUMB TUUUM - alla ricerca delle primitive informazionali del suono, as part of Lezioni Lincee in Scienze Informatiche, University of Palermo, April 27, 2017;

Masterclass on Sonic sketching e prototipazione sonora, Conservatorio di Torino, February 23, 2017;

Seminar on Sounding Objects and Sonic Sketches, Dipartimento di Matematica e Informatica, Università di Palermo, July 6, 2016;

Seminar on Imagining, Sketching, and Prototyping Sound, European Centre for Living Technology, Università Ca' Foscari di Venezia, March 4, 2016;

Opening lecture on Imagining, Sketching, and Prototyping Sound at the workshop "The Skat- VG project : a move to a new sound design tool", IRCAM, Paris, January 27, 2016 (<https://medias.ircam.fr/x5a628a>);

Open lecture Imagining, sketching and prototyping sound of the series Sound and Music Computing Colloquium, Aalborg University Copenhagen, November 27, 2015;

Open lecture Sounding Objects and Sonic Sketches at the Master of Advanced Studies in Interaction Design, University of Applied Sciences and Arts of Southern Switzerland, December 2014;

Seminar on Sketching and Prototyping Sonic Interaction Design, Catholic University of Porto, Portugal, 2010;

Invited teacher at the workshop Sound Design per Ambienti Interattivi: Ascolto quotidiano e oggetti sonanti, Conservatory of Como, 2007;

Seminar on Physically-based Sounding Objects, as we develop them today, Universitat Pompeu Fabra, Barcellona, 2004;

Invited lecture Oggetti Sonori e Icone Sonanti: l'Identità nell'Audio Non-Verbale in the series Letture Veronesi Dipartimento di Psicologia e Antropologia Culturale dell'Università di Verona, 2004;

Seminar on Balls within Boxes within Balls ...: compact, efficient, and versatile 3-D resonator models, HUT-Helsinki University of Technology, Finland, 2000;

Seminar on Structural, Computational, and Perceptual Aspects of Sound Synthesis by Physical Modeling, Stockholm, Sweden, 1999;

Invited lecture in the course Dal Timbro allo Spazio Virtuale, Roma, Dipartimento dello Spettacolo della Presidenza del Consiglio dei Ministri, 1996;

Invited lectures in the workshops La Sintesi per Modelli Fisici, Firenze and La Spazializzazione del Suono, Palermo, 1996;

## **ATTIVITÀ DI RICERCA SCIENTIFICA**

### **PUBBLICAZIONI SCIENTIFICHE**

#### **Journals**

- [1] D. Rocchesso, S. Andolina, G. Ilardo, S. D. Palumbo, Y. Galluzzo, and M. Randazzo, "A perceptual sound space for auditory displays based on sung-vowel synthesis", *Scientific Reports*, vol. 12, no. 1, p. 19 370, 2022.
- [2] F. Fontana, F. Muzzolini, and D. Rocchesso, "Importance of force feedback for following uneven virtual paths with a stylus", *Journal on Multimodal User Interfaces*, vol. 16, no. 2, pp. 183-191, 2022.
- [3] D. Rocchesso and M. Mannone, "A quantum vocal theory of sound", *Quantum Information Processing*, vol. 19, no. 9, pp. 1573-1332, 2020.
- [4] D. Rocchesso, S. D. Monache, and S. Barrass, "Interaction by ear", *International Journal of Human-Computer Studies*, vol. 131, pp. 152-159, 2019, 50 years of the *International Journal of Human-Computer Studies*. Reflections on the past, present and future of human-centred technologies, issn: 1071-5819.
- [5] A. Del Piccolo, D. Rocchesso, and S. Papetti, "Path following in non-visual conditions", *IEEE Transactions on Haptics*, vol. 12, no. 1, pp. 56-67, 2019.
- [6] S. Delle Monache, D. Rocchesso, F. Bevilacqua, G. Lemaitre, S. Baldan, and A. Cera, "Embodied sound design", *International Journal of Human-Computer Studies*, vol. 118, pp. 47-59, 2018, issn: 1071-5819.
- [7] S. Baldan, S. D. Monache, and D. Rocchesso, "The sound design toolkit", *SoftwareX*, vol. 6, pp. 255-260, 2017, issn: 2352-7110.
- [8] A. Del Piccolo and D. Rocchesso, "Non-speech voice for sonic interaction: A catalogue", *Journal on Multimodal User Interfaces*, vol. 11, no. 1, pp. 39-55, 2017, issn: 1783-8738.
- [9] D. Rocchesso, D. Mauro, and C. Drioli, "Organizing a sonic space through vocal imitations", *AES: Journal of the Audio Engineering Society*, vol. 64, no. 7-8, pp. 474-483, 2016.
- [10] D. Rocchesso, S. D. Monache, and S. Papetti, "Multisensory texture exploration at the tip of the pen", *International Journal of Human-Computer Studies*, vol. 85, pp. 47-56, 2016, issn: 1071-5819.
- [11] D. Rocchesso, G. Lemaitre, P. Susini, S. Ternström, and P. Boussard, "Sketching sound with voice and gesture", *interactions*, vol. 22, no. 1, pp. 38-41, Jan. 2015, issn: 1072-5520.
- [12] S. Delle Monache and D. Rocchesso, "Bauhaus legacy in research through design: The case of basic sonic interaction design", *International Journal of Design*, vol. 8, no. 3, pp. 139-154, 2014.
- [13] P. Cesari, I. Camponogara, S. Papetti, D. Rocchesso, and F. Fontana, "Might as well jump: Sound affects muscle activation in skateboarding", *PloS one*, vol. 9, no. 3, e90156, 2014.
- [14] D. Rocchesso, "Sounding objects in Europe", *The New Soundtrack*, vol. 4, no. 2, pp. 157-164, 2014.
- [15] S. Spagnol, M. Geronazzo, D. Rocchesso, and F. Avanzini, "Synthetic individual binaural audio delivery by pinna image processing", *International Journal of Pervasive Computing and Communications*, vol. 10, no. 3, pp. 239-254, 2014.
- [16] G. Lemaitre and D. Rocchesso, "On the effectiveness of vocal imitations and verbal descriptions of sounds", *The Journal of the Acoustical Society of America*, vol. 135, no. 2, pp. 862-873, 2014.
- [17] D. Rocchesso, "Introduction to two articles on the computational and mathematical developments of the phase vocoder", *Musica/Tecnologia*, vol. 7, pp. 71-72, 2013, issn: 1974-0042.
- [18] D. Rocchesso, G. Lemaitre, and M. Grassi, "Evidence for a spatial bias in the perception of sequences of brief tones", *J. Acoustical Soc. of America*, vol. 133, no. 5, EL346-EL350, May 2013.
- [19] F. Avanzini, G. De Poli, and D. Rocchesso, "Preface: Special issue on creativity rethinks science", *Journal of New Music Research*, vol. 41, no. 4, pp. 295-297, 2012.
- [20] D. Rocchesso and S. Delle Monache, "Perception and replication of planar sonic gestures", *ACM Transactions on Applied Perception*, vol. 9, no. 4, 18:1-18:21, Oct. 2012, issn: 1544-3558.
- [21] D. Rocchesso, "La pratica del design e delle arti nell'università italiana", *Archivio di Studi Urbani e Regionali*, vol. 17, pp. 233-236, 2012, issn: 0004-0177.
- [22] C. Drioli and D. Rocchesso, "Acoustic rendering of particle-based simulation of liquids in motion", *English, Journal on Multimodal User Interfaces*, vol. 5, no. 3-4, pp. 187-195, 2012, issn: 1783-7677.

- [23] S. Delle Monache, P. Polotti, and D. Rocchesso, "Sonic interaction design", *Disegno Industriale - Industrial Design*, no. 46-47, pp. 130-139, 2011.
- [24] K. Petrini, F. E. Pollick, S. Dahl, et al., "Action expertise reduces brain activity for audiovisual matching actions: An fMRI study with expert drummers", *NeuroImage*, vol. 56, no. 3, pp. 1480-1492, 2011, issn: 1053-8119.
- [25] S. Papetti, F. Avanzini, and D. Rocchesso, "Numerical methods for a nonlinear impact model: A comparative study with closed-form corrections", *IEEE Transactions on Audio, Speech, and Language Processing*, vol. 19, no. 7, pp. 2146-2158, 2011.
- [26] B. L. Giordano, D. Rocchesso, and S. McAdams, "Integration of acoustical information in the perception of impacted sound sources: The role of information accuracy and exploitability", *Journal of Experimental Psychology: Human Perception and Performance*, vol. 36, no. 2, pp. 462-476, 2010.
- [27] D. Rocchesso, P. Polotti, and S. Delle Monache, "Designing continuous sonic interaction", *International Journal of Design*, vol. 3, no. 3, pp. 13-25, 2009.
- [28] D. Rocchesso and S. Serafin, "Sonic interaction design", *International Journal of Human-Computer Studies*, vol. 67, no. 11, pp. 905-906, 2009.
- [29] K. Petrini, S. Dahl, D. Rocchesso, et al., "Multisensory integration of drumming actions: Musical expertise affects perceived audiovisual asynchrony", *Experimental Brain Research*, vol. 198, no. 2-3, pp. 339-352, 2009.
- [30] D. Devallez, F. Fontana, and D. Rocchesso, "Linearizing auditory distance estimates by means of virtual acoustics", *Acta Acustica united with Acustica*, vol. 94, pp. 813-824, 2008, issn: 1610-1928.
- [31] F. Fontana and D. Rocchesso, "Auditory distance perception in the acoustic pipe", *ACM Transactions on Applied Perception*, vol. 5, pp. 1-15, 2008, issn: 1544-3558.
- [32] G. Widmer, D. Rocchesso, V. V'alim-aki, et al., "Sound and music computing: Research trends and some key issues", *Journal of New Music Research*, vol. 36, no. 3, pp. 169-184, 2007.
- [33] A. D. Sena and D. Rocchesso, "A Fast Mellin and Scale Transform", *EURASIP Journal on Advances in Signal Processing*, vol. 2007, pp. 1-9, 2007, issn: 1687-6172.
- [34] C. Drioli and D. Rocchesso, "On the use of kernel-based methods in sound synthesis by physical modeling", *Numerical Algorithms*, vol. 45, pp. 315-329, 2007, issn: 1017-1398.
- [35] V. V'alim-aki, R. Rabenstein, D. Rocchesso, X. Serra, and J. O. Smith, "Signal processing for sound synthesis: Computer-generated sounds and music for all", *IEEE Signal Processing*, vol. 24 (2), pp. 9-11, 2007, issn: 1053-5888.
- [36] F. Avanzini, S. Serafin, and D. Rocchesso, "Interactive simulation of rigid body interaction with friction-induced sound generation", *IEEE Transactions on Speech and Audio Processing*, vol. 13, no. 5, pp. 1073-1081, 2005.
- [37] M. Rath and D. Rocchesso, "Continuous sonic feedback from a rolling ball", *IEEE Multimedia*, vol. 12, no. 2, pp. 60-69, 2005.
- [38] D. Rocchesso, "Physically-based sounding objects, as we develop them today", *Journal of New Music Research*, vol. 33, no. 3, pp. 305-313, 2004.
- [39] L. Ottaviani and D. Rocchesso, "Auditory perception of 3D size: Experiments with synthetic resonators", *ACM Trans. on Applied Perception*, vol. 1, no. 2, pp. 118-129, 2004.
- [40] F. Avanzini, D. Rocchesso, A. Belussi, A. Dal Palu', and A. Dovier, "Designing an urban scale auditory alert system", *IEEE Computer*, vol. 37, no. 8, pp. 73-79, 2004.
- [41] D. Rocchesso, R. Bresin, and M. Fernstr-om, "Sounding objects", *IEEE Multimedia*, vol. 10, no. 2, pp. 42-52, 2003.
- [42] C. Drioli and D. Rocchesso, "Orthogonal least squares algorithm for the approximation of a map and its derivatives with a RBF network", *EURASIP Journal on Signal Processing*, vol. 83, no. 2, pp. 283-296, 2003.
- [43] D. Rocchesso and J. O. Smith, "Generalized digital waveguide networks", *IEEE Transactions on Speech and Audio Processing*, vol. 11, no. 3, pp. 242-254, 2003.
- [44] B. Bank, F. Avanzini, G. Borin, G. De Poli, F. Fontana, and D. Rocchesso, "Physically informed signal processing methods for piano sound synthesis: A research overview", *EURASIP Journal on Applied Signal Processing*, vol. 2003, no. 10, pp. 941-952, 2003.
- [45] D. Rocchesso, R. Bresin, M. Fernstr-om, and B. Moynihan, "The sounding object", *IEEE Computer Graphics and Applications*, vol. 22, no. 4, Jul. 2002, CD-ROM supplement.
- [46] F. Avanzini and D. Rocchesso, "Efficiency, accuracy, and stability issues in discrete time simulations of single reed instruments", *J. Acoustical Soc. of America*, vol. 111, no. 5, pp. 2293-2301, May 2002.
- [47] N. Bernardini and D. Rocchesso, "Making sounds with numbers: A tutorial on music software dedicated to digital audio", *Journal of New Music Research*, vol. 31, no. 2, pp. 141-152, 2002.

- [48] F. Fontana and D. Rocchesso, "Signal-theoretic characterization of waveguide mesh geometries for models of two-dimensional wave propagation in elastic media", *IEEE Transactions on Speech and Audio Processing*, vol. 9, no. 2, pp. 152-161, Feb. 2001.
- [49] D. Rocchesso and P. Dutilleux, "Generalization of a 3-D resonator model for the simulation of spherical enclosures", *EURASIP Journal of Applied Signal Processing*, vol. 2001, no. 1, pp. 15- 26, 2001.
- [50] G. Borin, G. D. Poli, and D. Rocchesso, "Elimination of delay-free loops in discrete-time models of nonlinear acoustic systems", *IEEE Transactions on Speech and Audio Processing*, vol. 8, no. 5, pp. 597-605, 2000.
- [51] D. Rocchesso, "Fractionally-addressed delay lines", *IEEE Transactions on Speech and Audio Processing*, vol. 8, no. 6, pp. 717-727, Nov. 2000.
- [52] D. Rocchesso and F. Scalcon, "Bandwidth of perceived inharmonicity for physical modeling of dispersive strings", *IEEE Transactions on Speech and Audio Processing*, vol. 7, no. 5, pp. 597- 601, Sep. 1999.
- [53] Federico Fontana and D. Rocchesso, "Physical modeling of membranes for percussion instruments", *Acustica*, vol. 77, no. 3, pp. 529-542, 1998, S. Hirzel Verlag.
- [54] G. De Poli and D. Rocchesso, "Physically-based sound modeling", *Organised Sound*, vol. 3, no. 1, pp. 61-76, 1998, Cambridge University Press.
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- [56] D. Rocchesso and J. O. Smith, "Circulant and elliptic feedback delay networks for artificial reverberation", *IEEE Transactions on Speech and Audio Processing*, vol. 5, no. 1, pp. 51-63, Jan. 1997.
- [57] A. Camurri, G. De Poli, and D. Rocchesso, "Editor's Notes: A Taxonomy for Sound and Music Computing", *Computer Music Journal*, vol. 19, no. 2, pp. 4-5, 1995, MIT Press.
- [58] A. Camurri, G. De Poli, and D. Rocchesso, "Editor's Notes: Computer Music Instruction for Computer Engineering Students", *Computer Music Journal*, vol. 19, no. 3, pp. 4-6, 1995, MIT Press.
- [59] D. Rocchesso, "The Ball within the Box: a sound-processing metaphor", *Computer Music Journal*, vol. 19, no. 4, pp. 47-57, 1995, MIT Press.
- [60] D. Rocchesso, "Modelli generalizzati di strumenti musicali per la sintesi del suono", *Rivista Italiana di Acustica*, vol. 17, no. 4, pp. 61-71, 1993, Paper invited by the panel of the "Amedeo Giacomini" award, Associazione Italiana di Acustica.

#### **Books and book chapters**

- [61] M. Mannone and D. Rocchesso, "Sing and measure: Sound as voice as quanta", in *Quantum Computer Music: Foundations, Methods and Advanced Concepts*, E. R. Miranda, Ed., Springer Nature, 2023.
- [62] M. Mannone and D. Rocchesso, "Quanta in sound, the sound of quanta: A voice-informed quantum theoretical perspective on sound", in *Quantum Computing in the Arts and Humanities*, E. R. Miranda, Ed., Springer Nature, 2022.
- [63] S. Delle Monache and D. Rocchesso, "Sketching sonic interactions", in *Foundations in Sound Design for Embedded Media: A Multidisciplinary Approach*, M. Filimowicz, Ed., Routledge, 2019, pp. 79-101.
- [64] D. Rocchesso, S. Serafin, and M. Rinott, "Pedagogical approaches and methods", in *Sonic Interaction Design*, K. Franinović and S. Serafin, Eds., Cambridge, MA: MIT Press, 2013, pp. 125-150.
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## ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI CENTRI O GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI O PARTECIPAZIONE AGLI STESSI

Coordinator of project "Humane Interaction with Sustainable AI - HISAI" of PON Ricerca e Innovazione" 2014-2020, assigned with one position of Ricercatore a Tempo Determinato di tipo A (junior assistant professor) for three years, since 2022.

Author of Activity Line n. 1 of the project PON AIM1875400, assigned with one position of Ricercatore a Tempo Determinato di tipo A (junior assistant professor) for three years, since 2019.

Assignee of CoRI grant of the University of Palermo for hosting a scientific visit of prof. Stephen Barras (1 month, 2018).

Coordinator of the EU project SkAT-VG - Sketching Audio Technologies using Vocalizations and Gestures (FP7-ICT-2013-C, Future and Emerging Technologies). Duration of the project 36 months since January 1st, 2014 (<http://www.skatvg.eu>). Final evaluation: Excellent.

Chairman of the COST Action IC-0601 on Sonic Interaction Design (SID), with the participation of scientists from 17 countries (2007-2011).

Proposer of the two-years research project "Sound synthesis by physical models of the piano", jointly funded by the University of Verona and Viscount International SpA (2007-2009).

Co-proposer and head of research unit at the University of Verona for the EU project NEST- 29085 CLOSED - Closing the Loop Of Sound Evaluation and Design, part of the initiative Measuring the Impossible of New and Emerging Science and Technology (2006-2009: <http://closed.ircam.fr/>).

Head of research unit at the University of Verona for the Coordination Action S2S2 - Sound- to-Sense, Sense-to-Sound (2004 - 2007: <http://www.smcnetwork.org>).

Head of research unit at the University of Verona for the project “Sound/Control Co-Design: sintesi del suono e dispositivi di controllo gestuale”, funded in 2003 by the Ministry for University and Scientific Research.

Coordinator of the EU project IST 2000-25287 SOb - the Sounding Object, part of the initiative Disappearing Computer of Future and Emerging Technologies. Duration of the project was 30 months since January 1st, 2001 (<http://www.soundobject.org>).

Coordinator of the project Studio di fattibilità per l'ammodernamento del sistema di allertamento sonoro per le alte maree, commissioned by Consorzio Venezia Ricerche in 2002.

Co-proposer and head of research unit at the University of Verona for the project Modelli Per il suono nell'interazione uomo-macchina e uomo-ambiente, funded in 2000 by the Ministry for University and Scientific Research.

Responsible for auditory display in the project Augmented Reality for Teleoperation of Free Flying Robots, funded by the Italian Spatial Agency in 2000.

Participant to research activities in the research project between the University of Padova and Generalmusic S.p.A. (1995-1997).

Responsible for software application development in the research project between the University of Padova and the Istituto di Ricerca per l'Industria dello Spettacolo (1992-1993).

#### ATTIVITÀ QUALI LA DIREZIONE O LA PARTECIPAZIONE A COMITATI EDITORIALI DI RIVISTE SCIENTIFICHE

Member of the Editorial Board of the International Journal of Human-Computer Studies (since 2016) <http://www.journals.elsevier.com/international-journal-of-human-computer-studies/>

Member of the Research Committee of the journal Musica/Tecnologia <https://oajournals.fupress.net/index.php/mt/>

Guest editor for the special issues:

Musica/Tecnologia: the Phase Vocoder [17];

Journal of New Music Research: creativity rethinks science [19];

International Journal of Human-Computer Studies: sonic interaction design [28]; IEEE Signal Processing magazine: signal processing for sound synthesis [35].

#### PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI PER ATTIVITÀ DI RICERCA

Best paper award, ACM CHItaly 2019.

## PARTECIPAZIONE IN QUALITÀ DI RELATORE A CONGRESSI E CONVEGNI DI INTERESSE INTERNAZIONALE

### Elenco delle presentazioni ad invito:

Keynote speaker at Digital Audio Effects (DAFX-22), Vienna, Austria, september 8, 2022;

Invited speaker at the workshop on The State of the Art in Sound Synthesis and Procedural Audio, 144th Convention of the Audio Engineering Society, Milan, May 24, 2018;

Invited speaker at the workshop on Haptics and Musical Practice, Zurich University of the Arts, February 4-5, 2016;

Invited speaker at the Symposium: Perspectives on Sound Design, University of York, 2013;

Invited speaker at the conference Suona Italiano, 15 October 2013, Lyon, France;

Keynote speaker at the Earzoom Sonic Arts Festival, October 2013, Ljubljana, Slovenia;

Keynote speaker at the 1st European Workshop on HCI Design and Evaluation 2011, Limassol, Cyprus;

Keynote speaker at Haptic Audio Interaction Design 2010, Copenhagen, Denmark;

Invited speaker at the International Training School - Toward Autonomous, Adaptive, and Context-Aware Multimodal Interfaces: Theoretical and Practical Issues, Caserta, 2009;

Invited speaker at the workshop Lo spazio acustico e l'esecuzione musicale, Verona, 2007;

Invited speaker at the national conference of Philosophy of Music, Venezia, 2008;

Invited speaker in the series of lectures Registica - Ripensare il design della comunicazione, curated by G. Anceschi and A. Mattozzi, Iuav University of Venice, Venezia, 2006;

Invited speaker at the Incontri Italo-Francesi su l'Etica di Internet, Venezia, 2005;

Invited speaker at the Forum Acusticum, Budapest, 2005;

Invited speaker at the Paris Symposium on Sound Design, 2004;

Invited speaker at the workshop Tecnologie per la Musica - Audio Digitale e Musica Elettronica, Università La Sapienza, Roma, 2004;

Invited speaker at the Stockholm Music Acoustics Conference, 2003;

Invited speaker at the Workshop on Physical Modeling, Marseille, France, 2001;

Invited speaker at the International Congress on Acoustics, Roma, 2001;

Invited speaker at the Europeo Congress, Cavalese, Italy, 2000;

Invited speaker at the COST-G6 Workshop on Digital Audio Effects, Trondheim, Norway, 1999;

Invited speaker at the COST-G6 Workshop on Digital Audio Effects, Barcelona, Spain, 1998;



## **ATTIVITÀ GESTIONALI, ORGANIZZATIVE E DI SERVIZIO**

**INCARICHI DI GESTIONE E AD IMPEGNI ASSUNTI IN ORGANI COLLEGIALI E COMMISSIONI, PRESSO RILEVANTI ENTI PUBBLICI E PRIVATI E ORGANIZZAZIONI SCIENTIFICHE E CULTURALI, OVVERO PRESSO L'ATENEIO O ALTRI ATENEI**

Progettazione e attivazione del corso di laurea magistrale in Data, Algorithms, and Machine Intelligence, 2022;

Rappresentante nel Consiglio Scientifico dell'Università di Palermo per l'area 01 (Matematica e Informatica), dal gennaio 2019 al giugno 2022;

Valutatore di progetto per l'Austrian Science Fund, 2021;

Vice-direttore del Dipartimento di Matematica e Informatica dell'Università di Palermo, da novembre 2018 a ottobre 2021;

Senior Member of the ACM, since 2021;

Vice-coordinatore del Collegio di Dottorato in Matematica e Scienze Computazionali delle Università di Catania, Messina e Palermo, da novembre 2018 ad aprile 2020;

Coordinatore del Consiglio Interclasse dei Corsi di Studio in Informatica dell'Università di Palermo, da ottobre 2017;

Co-organizzatore e relatore d'apertura del Sound Design Rendezvous at IRCAM, Paris, January 19, 2017 (<https://medias.ircam.fr/x7f9fa7>);

Componente del Collegio di Dottorato in Matematica e Scienze Computazionali delle Università di Catania, Messina e Palermo, da novembre 2018 ad aprile 2020;

Co-organizzatore di 48 hours of sound design, Chateau La Coste, France, April 2016.

Supervisore, per l'Università luav di Venezia, degli assegnisti di ricerca Davide Andrea Mauro e Stefano Baldan (2014-16);

Componente del Collegio di Dottorato in Informatica della Università di Venezia Ca' Foscari (2014-17);

Valutatore di progetti per l'Università Italo-Francese, Bando Vinci (2014);

Valutatore di progetto per Research Foundation Flanders (2013);

Supervisore, per l'Università luav di Venezia, degli assegnisti di ricerca Stefano Delle Monache, Guillaume Lemaitre e Simone Spagnol, 2012;

Componente della commissione per gli esami finali di dottorato in Ingegneria Informatica, Università di Padova, 2012;

Delegato del Rettore per la comunicazione, Università luav di Venezia, 2012-13;

Valutatore di progetti per la Regione Piemonte, Polo della Creatività Digitale e Multimedialità, 2010, 2011;

Technical Program Chair of the Sound and Music Computing Conference, Padova, 2011;

Coordinatore della Unità di Ricerca "Interazione", Università luav di Venezia (2010-16);

Componente del Collegio di Dottorato in Scienze del Design della Università luav di Venezia (2007-14);

Valutatore di progetti per la Commissione Europea, ICT FET Proactive initiative on Human Computer Confluence, 2009;  
Organizzatore del XVII Colloquio di Informatica Musicale, Venezia, 2008;

Componente della commissione per gli esami finali di dottorato in Ingegneria Informatica, Università di Padova, 2006;

Valutatore di progetti per la Commissione Europea, New and Emerging Science and Technology (NEST), 2005;

Componente della commissione per gli esami finali di dottorato in Informatica, Università di Udine, 2004;

Valutatore di progetti di ricerca per l'Università di Padova;

Valutatore di progetti per Engineering and Physical Sciences Research Council (EPSRC, UK);

Presidente di AIMI - Associazione di Informatica Musicale Italiana (2003-2006);

Valutatore di progetti di ricerca per National Research Council Canada;

Valutatore di proposte editoriali per Wiley, 2003, 2006, 2009;

Valutatore di progetti di ricerca per Swiss National Science Foundation;

Componente del Collegio di Dottorato in Informatica della Università di Verona (fino al 2007);

Supervisore, per l'Università di Verona, degli assegnisti di ricerca Matthias Rath, Laura Ottaviani, Amalia De Gotzen, Antonio De Sena, Pietro Polotti, Delphine Devallez, Carlo Drioli, e Stefano Papetti;

Organizzatore del Workshop on Sound Perception, satellite event of the International Conference on Auditory Display, Espoo, Finland, 2001;

Valutatore per Stanford University, per promozione da Associate a Full Professor (2001);

Member of the Program Committee of the International Symposium on Musical Acoustics, Perugia, 2001;

Componente del Program Committee of the Sound and Music Computing conference (2005, 2006);

Organizer and general chairman of the COST-G6 International Conference on Digital Audio Effects, Verona, 2000;

Componente del Consiglio Direttivo del Centro di Sonologia Computazione dell'Università di Padova, dal 1998 al 2001.

Componente del Consiglio Direttivo dell'AIMI - Associazione di Informatica Musicale Italiana, tra il 1995 e il 1998.

Data

4 maggio 2023

Luogo

Palermo