

Axel Chemla – Romeu-Santos

32, rue de Thionville
75019 Paris
09/07/1993

(+33) 6 73 48 45 79
axelchemla@yahoo.fr

Formation

2010 - 2013 : Double Undergraduate Degree in Sciences & Music Theory

- Engineering Sciences, Université Pierre & Marie Curie.
- Music & Music Theory, Université Paris Sorbonne IV

2013 - 2015 : Postgraduate Degree in Engineering Sciences

- 1st year : acoustics, Université Pierre & Marie Curie
- 2nd year : acoustics, signal processing and computer science applied to music (ATIAM) Sorbonne Universités, IRCAM, Télécom ParisTech

2015 : Business Foundations Certificate (INSEAD)

2016-2018 : Computer Music Degree (CRR93)

2016-2019 : PhD in Computer Science

« Manifold representations of musical signals and generative spaces »

Directors : Goffredo Haus (IT), Gérard Assayag (FR) - Coordinator : Philippe Esling (FR)

LIM - Università Degli Studi di Milano, Milano, Italy

STMS IRCAM - Sorbonne Universités - CNRS, Paris, France

Work experience

2013: Sound Designer for game project *Evazion* with Sophia Antipolis - Cannes

2014: Internship to PuceMuse - *Developing real-time sound morphing devices*

2015 : Internship to **IRCAM** -

Planification guidelines for reactive improvisation

2015 : **Software Designer** for light & sound installation *EXO* with Félicie d'Estienne D'Orves

2016 : **Research Engineer at IRCAM** -

main developer of SoMax reactive improvisation environment

2015 : **Sound Designer** for educational software *GeoVisit*, Université Pierre & Marie Curie

2016 - 2017 : **Sound Engineer / composer** *Four Corners of a Square with its Center Lost*,
Théâtre de la Suspension

2017 : **electro-acoustic coordinator** for re-creation of *L'Esprit des Dunes*, Université Paris 8

2019 - 2020 : Post-Doctorate (ACIDS-IRCAM)

2020 - 2021 : Research Fellow (VEOS Digital)

2021 - 2022 : Post-Doctorate (ACIDS-IRCAM)

Workshops

- *New Tools for Musical Creativity with Neural Audio Synthesis*, NIME2022 (coordinator & speaker)

Publications

- Chemla–Romeu-Santos A., *aletheia*, AIMC2022 (musical paper)
- Chemla–Romeu-Santos A. & Esling P., *Challenges in creative generative models: a divergence maximization perspective*, AIMC2022
- Chemla–Romeu-Santos A., *Représentations variationnelles inversibles: Une nouvelle approche pour la synthèse sonore*, JIM, 2020
- Chemla–Romeu-Santos A., Scurto H. *aego*. CMMR, 2019.
- Chemla–Romeu-Santos A., Scurto H. *Machine Learning for Computer Music Multidisciplinary Research: A Practical Case Study*. CMMR, 2019.
- Esling P., Masuda N., Bardet A., Despres R., Chemla–Romeu-Santos A. *Universal audio synthesizer control with normalizing flows*. DaFX Proceeding 2019 (2019)
- Chemla–Romeu-Santos A., Ntalampiras S., Esling P., Haus G., Assayag G. *Cross-Modal Variational Inference for Bijective Signal-Symbol Translation*. DAFX Proceedings 2019 (2019).
- Esling, p., Chemla—Romeu-Santos, A., Bitton A. *Generative Timbre Spaces: Regularizing Variational Auto-Encoders With Perceptual Metrics* , DafX Proceedings 2018 (2018)
- Esling, P., Chemla—Romeu-Santos, A., Bitton, A. *Bridging audio analysis, perception and synthesis with perceptually-regularized variational timbre spaces* , [arxiv.org](https://arxiv.org/abs/1808.08112) (2018)
- Bitton, A., Esling, P., Chemla—Romeu-Santos, A. *Modulated Variational auto-Encoders for many-to-many musical timbre transfer* [arxiv.org](https://arxiv.org/abs/1808.08112) (2018)
- Nika, J., Déguernel, K., Chemla—Romeu-Santos, A. *DYCI2 agents: merging the " free", " reactive", and " scenario-based" music generation paradigms*. International Computer Music Conference (2017)
- Chemla—Romeu-Santos, A. *Guidges de l'Improvisation*. HAL, Master's thesis (2015)

Development

2015 : Software Designer for light & sound installation *EXO* with Félicie d'Estienne D'Orves

2016-2017 : Research engineer *developer of reactive improvisation environment SoMax*

2019 : Creator & developer of variational synthesis environment *vschaos*

2022 : Contributor to *nn~*, interface between ML systems and Max

2022 : Developer of RAVE AU / VST

Music / Performance

music / performance

2018 - : co-composer and producer in maximalist electronic trio **Daim**

2019 - : co-founder of musical design collective **w.lfg.ng**

2019 : *aego*, AI-based human-machine performance (with Hugo Scurto, CMMR2019)

2019 : *Malchut*, Kenoma

2020 : producer of *Mer* album

2021 : producer of *Azul Alpha* album

2022 : organizer / Performer of ACIDS Workshop Alpha (AI Music, Cirque Électrique)

2022 : organizer / Performer of Cirque Laboratoire (Circus + AI, Cirque Électrique)

2022 : *aletheia*, piece for hacked AI generators (AIMC2022)

theatre / cinema

2015 : **Sound Designer** for *Le Maitre et Marguerite*, La Manufacture (Lausanne)

2016 - 2017 : **Composer & Sound Engineer** for *Four Corners of a Square with its Center Lost*, Théâtre de la Suspension (spatial improvisation)

2020 : performer for *Retiens Johnny*

2020 : audio mastering of *Les Iles Périphériques* (Alice Brygo, Fresnoy)

2020-2022 : **Composer & Sound Engineer** for *Fils de Chien (Manifeste Autophage I)*, Théâtre de la Suspension

Languages

French - native

English - common

Italian - common

Deutsch - B2