

Rectoral Decree n. 2255  
Date 23 february 2026

To whom it may concern

Call for Applications – XLI Cycle, a.y. 2025/2026, PhD Programme in “Computational electroacoustic musical composition, generative algorithmic models and computational complexity”. See Annex A.

We invite applications for fully funded PhD scholarship on “Computational electroacoustic musical composition, generative algorithmic models and computational complexity.

The deadline for applications is 23:59 (CEST) on 25 march 2026.

Admission to the doctoral program indicated in this notice is subject to the positive outcome of the coherence and eligibility checks and the allocation of ministerial funding.

Please check here for details: <https://www.consba.it/it/3695/>

**The Director**  
**Signed M° Valter Nicodemi**

Annex A – Doctoral program sheet

Ph.D. Program	Computational electroacoustic musical composition, generative algorithmic models and computational complexity
Ph.D. Type	Doctorate in non-associated form
Scholarship position	2
Non-Scholarship position	0
Duration	3 years
Starting date	Before 16 April 2026
Language	Italian, English
Coordinator	Prof. Francesco Scagliola <a href="mailto:scagliola.francesco@docenticonsba.it">scagliola.francesco@docenticonsba.it</a>
Admission Modalities	Curriculum evaluation, research project evaluation and oral examination
Expected study and research periods abroad	From a minimum of 6 to a maximum of 12 months

Project description

The PhD Programme in “Computational electroacoustic musical composition, generative algorithmic models and computational complexity” is designed to provide students with advanced and interdisciplinary training, integrating music theory, composition theory, electroacoustic composition theory, electronic music theory, computer science, and mathematics. This unique programme aims to develop both theoretical and practical skills, enabling PhD candidates to explore and innovate in the field of computational music.

The programme involves the Bari Conservatory of Music and three university professors affiliated with the University of Bari and the Polytechnic University of Bari. One of the distinctive features of the programme is the intersection of musical, mathematical, computer science, and engineering studies, the related technologies, and the resulting narrative practices.

Starting from the main reference disciplinary sectors (COME/02 Electroacoustic Musical Composition, COME/04 Electroacoustics [construction and representation of virtual spaces], COTP/06 Rhythmic Theory and Musical Perception, ING-INF/05 Information Processing Systems [Artificial Intelligence], FIS/07 Applied Physics [complex systems, data analysis, network neuroscience], ICAR/13 Design [Interaction Design]), the PhD programme pays particular attention to:

1. integrating humanities studies with electroacoustic music technologies and musical and performative practices, promoting an interdisciplinary approach that enriches musical understanding and innovation;
2. developing new techniques of electroacoustic musical composition, leveraging sound programming environments and advanced computational tools;
3. designing and implementing algorithms for automatic music generation, including the use of artificial intelligence and machine learning tools to explore new creative possibilities;
4. studying the complexity of musical compositions through mathematical and computational models, understanding emergent dynamics and the intricate structures of music;
5. applying concepts from applied physics and network

neuroscience to analyze and understand complex systems in music, using data analysis and complex systems modeling;  
6. integrating design principles with audio technologies to create innovative and engaging musical experiences, exploring the interactions between sound, space, and performance;

7. using information processing systems to enhance musical composition, rhythmic perception, and musical analysis, leveraging artificial intelligence for new musical applications.

In summary, the PhD programme places strong emphasis on interdisciplinary integration and technological innovation, promoting advanced research and cutting-edge musical creation. It seeks to overcome the limitations of disciplinary compartmentalization, also through cultural and technological innovation aimed at fostering an understanding of the specificities and complexities of cultural heritage, with particular reference to the relationship between tangible and intangible heritage.