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The Institute for Advanced Study at CEU is pleased to invite you to its next Fellow Seminar by
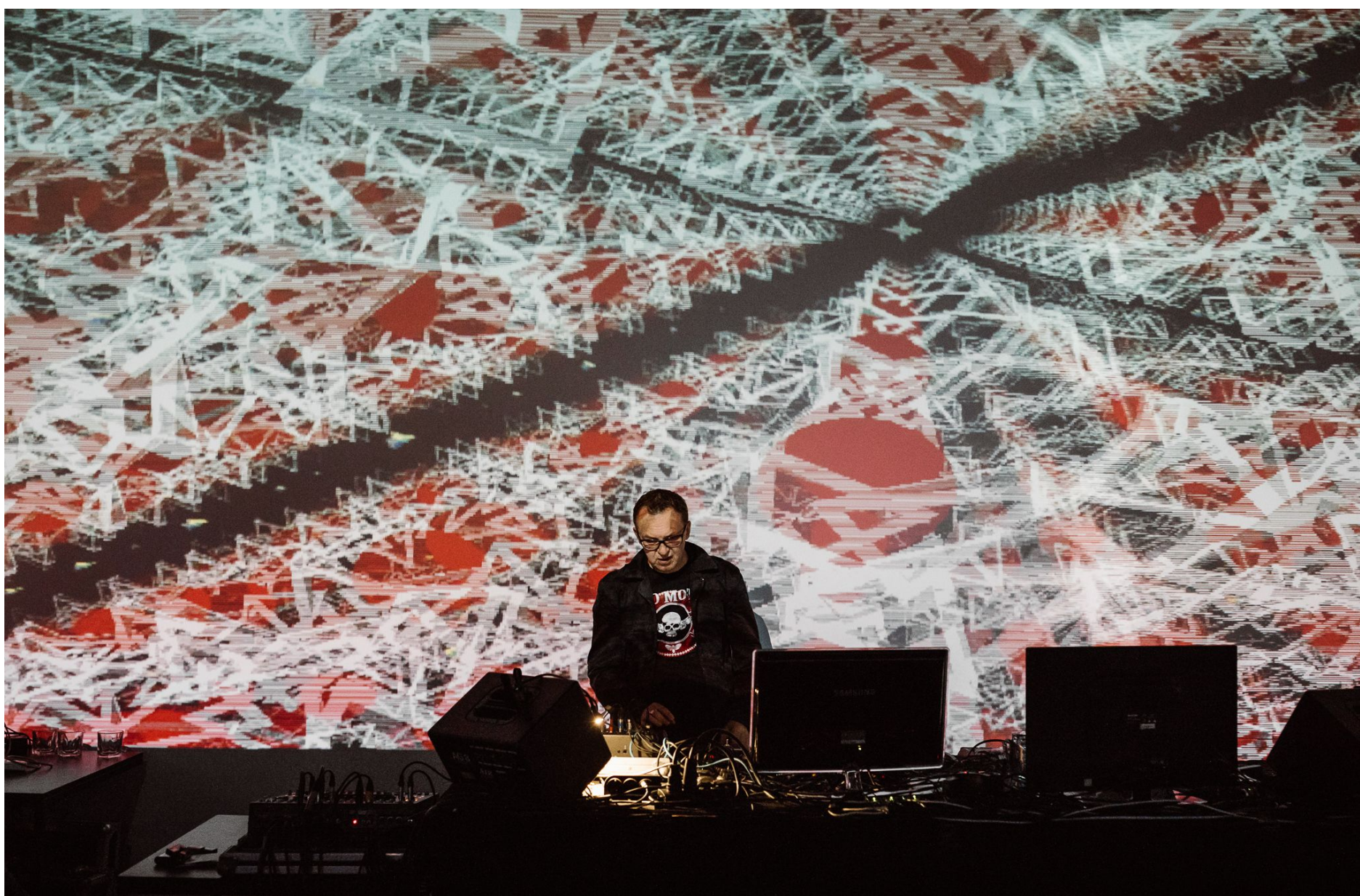
Robert B. Lisek

Artist in Residence at IAS CEU

Continuous Adaptation of Artificial Agents in Complex, Dynamic Environments

Wednesday, 4 March, 11:00 a.m.
Nador 15, **Auditorium B**

The research uses advanced AI methods (meta-learning) and cutting-edge technologies including immersive environments and virtual reality (VR) to offer an innovative, productive contribution to the domain of creative storytelling and art. Specifically, the project aims to propose a solution for problems linked to the creation of dynamic narratives and music compositions, specifically for the problem of continuous adaptation of artificial agents in complex dynamic environments. This refers to the difficulty of creating artificial agents that can respond intelligently to evolving complex situations. The main objective of the project is to research and develop new forms of storytelling and to compose a new dimension of artificial intelligence. The project will respond to the challenges by creating a meta-learning framework. In this system the actor (neural network) learns a high-level procedure (meta-learning) that can be used to generate a good general strategy (policy) in response to environment changes.

Robert B. Lisek is an artist, mathematician and composer who focuses on systems, networks and processes (computational, biological and social). He is involved in a number of projects focused on media art, creative storytelling and interactive art. Drawing upon post-conceptual art, software art and meta-media, his work intentionally defies categorization. Lisek is a pioneer of art based on Artificial Intelligence and Machine Learning. Lisek is also a composer of contemporary music, author of many projects and scores on the intersection of spectral, stochastic, concret music, musica futurista and noise. Lisek is also a scientist who conducts research in the area of foundations of science (mathematics and computer science). His research interests are category theory and high-order algebras. He cooperates with universities around the world, among others: Anglia Ruskin University, Cambridge University, Columbia University and Texas Univesity at Dallas. He is the author of 300 exhibitions and presentations, including: ZKM Karlsruhe, IRCAM Center Pompidou Paris, MAXXI Museum Rome, STEIM Amsterdam, WORM Center Rotterdam, Venice Biennale, ARCO Art Fair Madrid, Lower Manhattan Culture Council and SIGGRAPH.