Dr. Romain Michon, Αναπλ. Καθηγητής, INSA Lyon

Θέμα: “Archeoacoustics”

**Open Embedded Sound Processing and Synthesis With Faust: Towards Applications in Virtual Acoustics Rendering**

Acoustics plays a crucial role in our perception of a given space. In that regard, it contributed to artistic production (i.e., painting, music, etc.) in a wide range of spaces such as theaters, caves, etc. However, some of these acoustical spaces are either lost or inaccessible to the general public because they are protected, too hard to reach, or because they just don't exist anymore. Virtual acoustics rendering is a set of techniques that can be used to implement the acoustics of a given space in 3d in another room, using speakers or individually, using headphones. In this talk, we demonstrate how research around embedded systems and the Faust programming language is proposing new approaches for virtual acoustics systems for public rendering applications. For that, we take the example of the Chauvet cave in the south of France, which hosts some of the oldest paintings of humanity. We also give an introduction to Faust, as well as an overview of the current state of the art on research on embedded audio systems.

Dr. Diemo Schwarz, IRCAM / France

Θέμα: “CataRT Tangible Timbre Spaces”

**CataRT**

CataRT is a technology devoted to structuring sound grains obtained from large sound collections of any kind according to audio characteristics automatically analyzed and chosen by the user. Thus, sound databases may be explored quickly and intuitively for use in the areas of musical composition, sound design, live performance and improvisation. The workshop will present CataRT's principles, the underlying MuBu framework for managing multi-modal time-based data, and give participants the chance to use it via “hands-on” examples in order to acquire the skills necessary for creating compositions, installations, digital instruments and personalized creative tools.

This workshop will be most useful to participants having at least a basic knowledge of Max programming. Participants can bring their computer and controllers they would like to use with CataRT. It is advisable to have the following software already installed:

* Max (at least version 8)
* [Mubu](https://emea01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fircam-ismm.github.io%2Fmax-msp%2Fmubu.html&data=05%7C02%7C%7C09cb1622f64b4fa7cb3108dda10fd7f4%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638843811610861249%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=U8dcaNtdb6k749DhVgzSdiPbAuZiV1ZAYVWXTC8OyN0%3D&reserved=0) installed from [Max Package Manager](https://emea01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcycling74.com%2Fpackages%2Fmubu-for-max&data=05%7C02%7C%7C09cb1622f64b4fa7cb3108dda10fd7f4%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638843811610885624%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=vbiEjJNiqXpUnva1PQZQWFLMyd97mQr8KvG4SgGMx1M%3D&reserved=0), or [Mubu Forum project](https://emea01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fforum.ircam.fr%2Fprojects%2Fdetail%2Fmubu%2F&data=05%7C02%7C%7C09cb1622f64b4fa7cb3108dda10fd7f4%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638843811610901047%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=iwTefyB5m72nM7dFD37TeNZUom%2B%2F9o2JsEdNEgAsmu4%3D&reserved=0)
* [catart-mubu](https://emea01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fircam-ismm.github.io%2Fmax-msp%2Fcatart.html&data=05%7C02%7C%7C09cb1622f64b4fa7cb3108dda10fd7f4%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638843811610916676%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=SK64Ym9CgXU0qAPLVya%2FOh%2F1Kjqotq2FqRCLPb2%2FXXc%3D&reserved=0) from [Max Package Manager](https://emea01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcycling74.com%2Fpackages%2Fcatart-mubu&data=05%7C02%7C%7C09cb1622f64b4fa7cb3108dda10fd7f4%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638843811610932625%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=%2FyJsPVqZfTUe5nKsB4BWnncpF%2FITTRkDbP5UW7BRER8%3D&reserved=0) or [CataRT Forum project](https://emea01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fforum.ircam.fr%2Fprojects%2Fdetail%2Fcatart-mubu&data=05%7C02%7C%7C09cb1622f64b4fa7cb3108dda10fd7f4%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638843811610948935%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=9AfuCooowF8WJhYUgUHBmQZ%2FICQOI2ynqhJ8PclN9KA%3D&reserved=0)
* optional: bach, cage packages from [Max Package Manager](https://emea01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcycling74.com%2Fpackages%2F&data=05%7C02%7C%7C09cb1622f64b4fa7cb3108dda10fd7f4%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638843811610964503%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=xvSLa5HnrpgOL%2F4Ys19Gu7b0Kw8iX9aSzFNH9MT1Jgg%3D&reserved=0)