Saturday 26th November 2016, 13:00-14:30, Bewerunge Room, Maynooth University.

## Workshop: Csound and the Unity Rory Walsh

Adaptive audio for games presents a serious challenge for both developers and sound designers. Existing audio middleware offer some solutions, but fall way short of the kind of tools sound designers are used to working with. This talk will focus on the use of Csound as a fully integrated sound engine for the Unity(3D) game engine. The talk will begin with a look at some core elements of Unity, including basic player movements, the Unity physics engine, cameras and scenes. This will be followed by an look at the CsoundUnity package and integration of Csound into a game. Different approaches to using Csound as a game audio engine will be explored, as well as technical issues that need to be addressed when developing for different platforms. The talk will finish with a look at a recent game developed by the author as part of a week long artists residency at Lough Dan in Co.Wicklow.

Saturday 26<sup>th</sup> November 2016, 15:00-17:00, Bewerunge Room, Maynooth University.

## Workshop: Live Electronics with Csound and Raspberry Pi Alex Hofmann and Bernt Isak Wærstad



In this workshop the basics of how to setup the Raspberry Pi to perform Live-Electronic music with Csound is explained. Moreover, ways to interface Audio Signals (USB-Soundcards, alternatives using the GPIO header) and Sensor Signals (through Arduino or via the GPIO header) into Csound are demonstrated.

Participants are encouraged to bring:

- their own RPI's (with empty mini SD Card), sensors and other boards.
- a laptop with Ethernet Connection
- Midi Controller, or small Midi Keyboard
- Headphones with mini-jack

Participants are also welcome to attend and just observe.