

Saal: Project 12:00 00:30 Day: 3 Track: Hardware & Making nA
2501

Title: **Digital Musical Instruments**

Subtitle: Evolution and design of new interfaces for musical expression

Speaker: **Julian Vogels**

Short: *Musical instrument designers have always brought together cutting-edge technology and a thorough understanding of ergonomics and interfaces tailored to the needs of musicians. This talk will present an introduction on the evolution of novel musical instruments and the most important design considerations.*

Long: Musical instruments like the piano have been invented centuries ago, and have since been refined to perfection. With the design of novel Digital Musical Instruments (DMIs, mainly consisting of an interface, a parameter mapping and a sound synthesis unit), we are measured and compared to these achievements of human craft and culture. Wright and Wessel published an often cited ideal, stating that the perfect DMI should have a "low entry fee" and "no ceiling on virtuosity". I will present several design considerations that can help achieve this. Although tailored to musical instruments, these principles are easily applied to any interaction design. Furthermore, I will give a non-exclusive tour of interesting achievements in DMI design of the 20th and 21st century.