



**SPEAKER:** Graham Jack, Paul Franklin, Oliver James  
**TITLE:** **Art and Science in the Movies: the Visual Effects of Interstellar**  
**DATE:** 14 Mar 2019, 16:30  
**PLACE:** 500-1-001 - Main Auditorium

## **ABSTRACT**

Christopher Nolan's science-fiction epic Interstellar presented DNEG the opportunity to combine visual storytelling with theoretical physics. We discuss our Research & Development efforts to visualise the complex physics of black holes and gravitational waves: How did we approach the visual effects for this movie, namely the design of a virtual environment to represent higher spatial dimensions and our collaboration with Kip Thorne (Nobel Prize in Physics, 2017) to develop a new renderer to ray-trace through gravitationally warped space. This project, in the region where art and science overlap, resulted in the publication of two academic papers, and contributed to the movie winning both the Academy Award and BAFTA for Special Visual Effects.