

The Einstein Lectures Dahlem, hosted by Freie Universität Berlin since 2005 in partnership with several external institutions, are dedicated to the epochal work of Albert Einstein. Einstein was the director of the Kaiser Wilhelm Institute of Physics for almost two decades.

Dahlem

Since 2017, this first-rate, interdisciplinary colloquium held at the traditional center of scientific research Berlin-Dahlem, is hosted in cooperation with the Max Planck Society, the legal successor of the Kaiser Wilhelm Society. The lectures address a broad academic public and cover various scientific disciplines influenced by Einstein's thinking.

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Einstein Lectures

19th EINSTEIN LECTURE DAHLEM INVITATION — OCTOBER 29, 2019

October 29, 2019 | 6 pm

Freie Universität Berlin Henry Ford Building, Garystr. 35, 14195 Berlin

Please register by October 23, 2019

www.fu-berlin.de/einsteinlectures

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Dark matter map of KiDS survey region © Kilo-Degree Survey Collaboration, H. Hildebrandt & B. Giblin/ESO Albert Einstein © Archive of the Max Planck Society, Berlin-Dahlem

19th Einstein Lecture Dahlem

Welcome | Prof. Dr. Günter M. Ziegler President of Freie Universität Berlin

Introduction | Prof. Dr. Hermann Nicolai Director at Max Planck Institute for Gravitational Physics (Albert Einstein Institute)

Seeing the Invisible The Dark Side of the Universe

Prof. Dr. Catherine Heymans Institute for Astronomy, University of Edinburgh



Catherine Heymans

Catherine Heymans is a Professor of Astrophysics at the University of Edinburgh, Director of the German Centre for Cosmological Lensing at the Ruhr-Universität Bochum, and a European Research Council Fellow. She specialises in observing the dark side of our Universe and co-leads the European Southern Observatory's Kilo-Degree Survey, using deep sky observations to test whether we need to go beyond Einstein with our current theory of gravity.

Catherine is passionate about making science accessible for everyone. Her online course 'AstroTech' has attracted over 40.000 students worldwide, and she is a regular contributor to radio shows, art, music and science festivals.

She holds the 2017 Darwin Lectureship from the Royal Astronomical Society and the 2018 Max Planck-Humboldt Research Award.

Seeing the Invisible The Dark Side of the Universe

Just over 95% of our Universe comes in the shrouded form of dark energy and matter that we can neither explain nor directly detect. Together, these two dark entities play out an epic cosmic battle with the gravity of dark matter slowly pulling structures in the Universe together, and dark energy fuelling the Universe's accelerated expansion, making it ever harder for those structures to grow.

Catherine Heymans has used the world's best telescopes to map out the invisible dark matter in our Universe and confront different theories on the dark Universe. She will explore this dark enigma and explain why she thinks in order to truly understand the dark Universe, we will need some new physics that will forever change our cosmic view.



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