



GUEST LECTURE

Dr. Anna Ijjas

Max Planck Institute for Gravitational Physics, Hannover (Guest of Prof. Dr. Klemens Hammerer)

Leibniz Universität Hannover DQ-mat Colloquium 15 October 2020, 3.30 pm (via Zoom-Meeting)

"Cosmology Reconsidered"

For over fifty years, since the discovery of the cosmic microwave background, the consensus view has been that the universe had a definite beginning, known as the big bang. In the first half of this talk, I will review the standard big-bang inflationary paradigm and how it is supposed to explain the large-scale structure of our universe. We will then consider whether it is possible to replace the big bang with a big bounce, discarding the idea of a "beginning" altogether and perhaps obtaining a more natural explanation of the large-scale properties of the observable universe. This second part of the talk will particularly focus on current and near-future research projects of my newly established Lise Meitner Group at the AEI-Hannover.