

8.701

Introduction to Nuclear
and Particle Physics

Markus Klute - MIT

0. Introduction

0.3 Teaching Staff



Short Bio - Instructor: Markus Klute

Markus Klute joined the MIT Physics Department in April 2009. He received his Diploma and Ph.D from Rheinische Friedrich-Wilhems University, Bonn, Germany in 2004 with research on the OPAL, ATLAS and D0 experiments. After earning his Ph.D he joined MIT as a postdoc and later as a research scientist, and worked on the CDF and CMS experiments. In 2007 he accepted a position as Associate Professor with tenure at Goerg-August University in Goettingen, Germany, where he started a research group on the ATLAS experiment before coming back to MIT.



Research Interests - Markus Klute

Professor Klute's research interest is particle physics at the energy frontier, both in the design, construction and commissioning of particle detectors, and in the analysis of the data collected. In 2012 his group played a central role in the discovery of the Higgs boson using the CMS experiment at the LHC. The discovery sheds light on the fundamental question of the origin of elementary particle mass and the mechanism of electroweak symmetry breaking. The exploitation of the Higgs boson and direct searches for physics beyond the standard model at the LHC are the focus of his future research.



Short Bio - TA: Tianyu Justin Yang

Justin is a second-year NUPAX student currently working with Markus on physics simulations for the CMS Experiment and the FCC-ee machine that is to be built as the successor of the LHC. He is a 8.701 veteran from Fall '19. Prior to coming to MIT, he graduated from the University of Michigan - Ann Arbor with Bachelors in Physics and Mathematics while he was conducting his undergraduate research in the Muon $g - 2$ Experiment with Timothy Chupp. Recently he has been running, rowing and hiking a lot in his free time.

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