

Columbia Department of Physics PhD Graduates 2017

Andrea Petri

"Non-Gaussian information in cosmology with weak gravitational lensing."

Dissertation Sponsor and Research Advisors: Professors Lam Hui and Morgan May

David Kaleko

"MicroBooNE: The search for the MiniBooNE low energy excess."

Dissertation Sponsor and Research Advisor: Professor Mike Shaevitz

Andrey Vlasov

"Outflows from compact objects in supernovae and novae."

Dissertation Sponsor and Research Advisor: Professor Brian Metzger

Steven Alkire

"ATLAS levels up: Early Searches for diboson resonances in semi-hadronic decay channels at $\sqrt{s} = 13$ TeV center of mass energy."

Dissertation Sponsor and Research Advisor: Professor Emlyn Hughes

Ting Ting Wang

"Heavy flavor jet quenching in relativistic heavy ion collisions at the LHC."

Dissertation Sponsor and Advisor: Professor Brian Cole

Ori Weiner

"Gamma-ray burst science in the era of IACT arrays."

Dissertation Sponsor: Professor Gustaaf Brooijmans

Research Advisor: Professor Reshmi Mukherjee

Andrew Brainerd

"Topics in cosmology and quantum mechanics: Entanglement harvesting and cosmic bubble collisions"

Dissertation Sponsor and Research Advisor: Professor Brian Greene

Yuran "Alex" Chen

"Particle-in-cell simulation and its applications to magnetosphere problems in astrophysics."

Dissertation Sponsor and Research Advisor: Professor Andrei Beloborodov

Ziyuan Bai

"Neutral kaon mixing from lattice QCD."

Dissertation Sponsor and Research Advisor: Professor Norman Christ

Derek Araujo

"Data analysis for the E and B Experiment and instrumentation development for cosmic microwave background polarimetry."

Dissertation Sponsor and Research Advisor: Professor Amber Miller

Carlos Forsythe

"Fractal magnetic subband structure in dielectric superlattice graphene systems."

Dissertation Sponsor and Research Advisor: Professor Cory Dean

David Murphy

"Precision light flavor physics from lattice QCP."

Dissertation Sponsor and Research Advisor: Professor Robert Mawhinney

Antonio Levy

"Optical spectroscopy of emergent phases in the second Landau Level."

Dissertation Sponsor and Research Advisor: Professor Aron Pinczuk

Ryne Carbone

"A search for new diboson resonances in the boosted semi-leptonic final state at $\sqrt{s} = 13$ TeV with the ATLAS detector."

Dissertation Sponsor and Research Advisor: Professor John Parsons

Sky Cheung

"Understanding iron-pnictide superconductors using Muon spin rotation and scanning tunneling microscopy with nonconvex optimization."

Dissertation Sponsor and Research Advisor: Professors Abhay Pasupathy and Yasutomo Uemura