

Daniel Marlow–Curriculum Vitae

Contact Information

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Professional Preparation

Carnegie Mellon University	Physics	BS 1976
Carnegie Mellon University	Physics	Ph.D. 1981
Carnegie Mellon University	Physics	Research Staff 9/80~8/83

Appointments

Princeton University	Evans Crawford 1911 Professor	7/11 ~ present
Princeton University	Physics Department Chair	7/01 ~ 1/08
Princeton University	Professor of Physics	7/95 ~ 6/11
Princeton University	Associate Professor of Physics	7/90 ~ 6/95
Princeton University	Assistant Professor of Physics	7/84 ~ 6/90
Carnegie Mellon University	Assistant Professor of Physics	9/83 ~ 6/84

Awards and Honors

DOE Outstanding Junior Investigator 1985
Fellow of the American Physical Society, Division of Particles and Fields

Research Experience

After earning a Ph.D. in the field of medium energy nuclear physics, Marlow switched to High Energy Physics, working as a postdoc on the Crystal Ball Experiment at SLAC and DESY. As a junior faculty member, he joined with colleagues from Princeton, BNL, and TRIUMF to design, build, and analyze data from BNL E787, a search for the rare decay $K^+ \rightarrow \pi^+ \nu \bar{\nu}$. Upon completion of the first phase of E787, Marlow's interest turned to the SSC around 1990, where he co-led (with Mike Shaevitz) GEM's readout electronics subsystem. Shortly after the demise of the SSC in 1993, Marlow became a founding member of the Belle collaboration at KEK in Japan, where he carried out research until 2008. He currently serves as Deputy Operations Program Manager for the US CMS collaboration and is a member of the Brookhaven Science and Technology Committee.

Selected Publications

“Measurement of Inclusive W and Z Boson Production Cross Sections in pp Collisions at $\sqrt{s}=8$ TeV,” The CMS Collaboration, Phys. Rev. Lett. 112 (2014) 191802.

“Observation of a new boson with mass near 125 GeV in pp collisions at $\sqrt{s}=7$ and 8 TeV,” The CMS Collaboration, JHEP 06 (2013) 081.

“Difference in direct CP violation between charged and neutral B meson decays,” (with S.-W. Lin, *et al.*), Nature **452**, 332 (2008).

“Evidence for Large Direct CP Violation in $B^\pm \rightarrow \rho^0 K^\pm$ from the Analysis of Three-Body Charmless $B^\pm \rightarrow \pi^\pm \pi^\mp K^\pm$,” with (A. Garmash *et al.*), Phys. Rev. Lett. **96**, 251803 (2006).

“Time-Dependent CP-Violating Asymmetries in $b \rightarrow sq\bar{q}$ Transitions,” with K-F.Chen *et al.*, Phys. Rev. **D72** 012004 (2005).

“Evidence for Direct CP Violation in $B^0 \rightarrow K^\pm \pi^\mp$ Decays,” with Y. Chao *et al.*, Phys. Rev. Lett. **93**, 191802 (2004).

“An Improved Measurement of Mixing-Induced CP Violation in the Neutral B-Meson System,” with K. Abe *et al.*, Phys. Rev. Lett. **89** 071102 (2002).

“Study of CP-violating asymmetries in $B^0 \rightarrow \pi^+ \pi^-$ Decays,” with K. Abe *et al.*, Phys. Rev. Lett. **89** 071801 (2002).

“Detection of internally reflected Cherenkov light, results from the Belle DIRC prototype,” (with C.-Lu *et al.*) Nucl. Instr. & Meth. **A371**, 82 (1996).

“Search for the decay $K^+ \rightarrow \pi^+ \nu \bar{\nu}$,” (with M.S. Atiya *et al.*), Phys. Rev. Lett. **64**, 21 (1990).

“Kaon Scattering from C and Ca at 800 MeV/c,” (D. Marlow *et al.*), Phys. Rev. **C25**, 2619, (1982).

Thesis Advisees and Postdocs (current and recent past)

- Samuel Higginbotham (1st Year)
- Jingyu Luo (3rd year)
- Phil Hebda (Ph.D. July 2015)
- Andrzej Zuranski (Ph.D. January 2014)
- Olga Driga (Postdoc) Princeton
- Chris Palmer (Postdoc) Princeton