

### Hai Chen

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# **Education**

Massachusetts Institute of TechnologyCambridge, MA/2010-2015Ph.D in Experimental High Energy PhysicsAdvisor: Prof. Ulrich BeckerUniversity of Science and Technology of ChinaHefei, China/2006-2010B.S in Theoretical PhysicsHefei, China/2006-2010

#### Experience

CERN, Research Assistant Geneva, Switzerland/2012.02-2016.09

- Develop calibration software(C++) to the Calorimeter of AMS-02 experiment in space on daily basis. Precision of all pixels is at 1.0% level
- Develop reconstruction algorithm(C++) using likelihood approach on energy measurement and particle identification. Resolution of energy measurement is 2.0% at high energies
- Analyze the combined flux of primary electrons and positrons in comic rays from 560TB data

Physics Department, MIT, Teaching Assistant Cambridge, MA/2011-2012

Graduate level course 8.942-Cosmology

EMI Group, MIT, Research Assistant

Cambridge, MA/2010-2011

- Monitor and shift on he AMS-02 detector status after its installation on the International Space Station
- Quantitative study of environmental effects on TPB Wavelength-Shifting coatings for neutrino experiment scintillators.

## Skills

**Programming** C(6 years), C++(4 years), Shell Script(3 years), Python(1 year)

Language English(proficiency), Chinese(native), German(basic)

#### **Publication**

1. "Precision Measurement of the e++e- Flux in Primary Cosmic Rays from 0.5 GeV to 1 TeV with the Alpha Magnetic Spectrometer on the International Space Station", M. Aguilar et al., Phys. Rev. Lett. 113, 221102, 2014

2. "Electron and Positron Fluxes in Primary Cosmic Rays Measured with the Alpha Magnetic Spec- trometer on the International Space Station", M. Aguilar et al., Phys. Rev. Lett. 113, 121102, 2014

3. "High Statistics Measurement of the Positron Fraction in Primary Cosmic Rays of 0.5-500 GeV with the Alpha Magnetic Spectrometer on the International Space Station", L. Accardo et al., Phys. Rev. Lett. 113, 121101, 2014

4. "First Result from the Alpha Magnetic Spectrometer on the International Space Station: Precision Measurement of the Positron Fraction in Primary Cosmic Rays of 0.5-350 GeV", M. Aguilar et al., Phys. Rev. Lett. 110, 141102, 2013

5. "Environmental Effects on TPB Wavelength-Shifting Coatings", C.S. Chiu, C. Ignarra, L. Bugel, H. Chen, J.M. Conrad, B.J.P. Jones, T. Katori, I. Moult, JINST 7, P07007, 2012