Jung Lin (Doris) Lee

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EDUCATION

University of California, Berkeley Sept 2013 - 2017

Major: Physics, Astrophysics

Relevant Coursework: Honors Mechanics, Structure & Interpretation of Computer Programs, Multivariable Calculus, Honors Electromagnetism, Differential Equations and Linear Algebra, Algorithms and Data Structures, Honors Modern Physics, Optical and Infrared Astronomy Lab, Statistical Mechanics, Quantum Mechanics, Electromagnetism and Optics, Modern Physics and Advanced Electrical Laboratory, Introduction to High Performance Computing for Astrophysicists

SKILLS

High Performance Computing: Fortran , C, C++, OpenMP, MPI
Scripting/Data Analysis: Python, Java , Bash , Scheme , IDL, SQL , ROOT
Others: Git, HTML/PHP, LaTeX, Mathematica, LabView

EXPERIENCE

University of California Berkeley Department of Astronomy November 2014 - Present

- Investigating the effect of magnetic field in dense molecular cores as sites for protostar formation.
- Using the parallel, adaptive mesh refinement MHD code, *RAMSES*, to track the evolution of a collapsing dense core.

CITRIS Invention Lab June 2014 - Present

- Creating low-cost fabrication technique for on-skin wearable electronics.
- Developed a ferro-fluid sketching technique as a new interface for human-computer interaction.
- Built a pipeline for rapid prototyping PCB-like circuits using flexible polystyrene plastic sheets as substrates.

Princeton University Department of Astrophysical Sciences June 2015 - August 2015

- Exploring the effects of Papaloizou-Pringle instability and Magnetorotational instability in accretion disk torus.
- Running global, magnetohydrodynamics (MHD) and hydrodynamics simulations of accretion discs using the *Athena* code on supercomputers.

University of Illinois Laboratory for Cosmological Data Mining May 2014 - June 2015

- Developing a new, scientifically-calibrated version of the RC3-cataloged galaxies that lies within the Sloan Digital Sky Survey footprint.
- Paper submitted for review to *Astronomy and Computing*.

ACTIVITIES

News Editor for Association for Computing Machinery Magazine Nov 2014-Present
Club Liaison Society of Physics Student Sept 2014-Present
Volunteer at Berkeley COMPASS Project Sept 2013-Present
Outreach education and support minorities in the physical sciences.
UC Berkeley Computer Science Scholars Program 2013-2014 Academic Year