

MICHAEL K. MCCOURT

☎ 310-923-2656 ✉ mkmccjr@gmail.com 🌐 mkmcc.github.io
📄 github.com/mkmcc 📄 arxiv.org/a/mccourt_m_1

SKILLS AND TECHNICAL PROFICIENCIES

Modeling

- ✧ I specialize in building simple but predictive models for complex systems, identifying and highlighting the most salient features. *My goal is to make difficult problems easy.*
- ✧ Expertise in translating ideas rapidly into equations (or code) and vice-versa.

Programming

- ✧ Proficient in C, Ruby, and Python. Also proficient with Mathematica, Emacs Lisp, and shell scripts.
- ✧ Proficient in high-performance computing (utilizing some of the nation's fastest supercomputers), and in statistical data fitting using genetic algorithms and Markov Chain Monte Carlo simulations.
- ✧ Created popular open-source tools for simplifying daily scientific tasks, including:
 - “gnuplot-mode,” a package for editing plots, downloaded by nearly 10,000 scientists to date, and
 - “bibslurp,” a tool for automatically making bibliographies from the standard NASA database, adopted by 800+ scientists

Communication and Collaboration

- ✧ Invited speaker to 26 conferences and seminars
- ✧ Regularly complimented on the clarity of my reasoning and writing; one proposal for supercomputer time was selected by the granting agency as their published example of a well-written application
- ✧ Selected as a referee (expert reviewer) for five academic journals, including *Nature Letters*
- ✧ Initiating new collaborations among scientists

Management Experience

- ✧ Raised over \$2 million in funding and supercomputer time to run a small research group
- ✧ Conducted an international job search and hired a postdoctoral research scholar
- ✧ Currently mentoring two undergraduate students and three graduate students on multi-year projects
- ✧ Organized and taught a fluid dynamics “bootcamp” at UCSB after recognizing it was needed

EXPERIENCE AND EDUCATION

- ✧ Authored 23 peer-reviewed scientific papers cited 580 times (research index quotient in the 95th percentile for astrophysics)
- ✧ Conducted self-directed research on 10 different topics over 11 years

KITP Fellow, UC Santa Barbara

(awarded for 2019-2020)

Hubble Fellow, NASA

SEPT 2016—present

ITC Fellow, Harvard University

SEPT 2014—JULY 2015

- ✧ Recipient of prestigious independent research fellowships.

Graduate Student Researcher, UC Berkeley.

AUG 2008—AUG 2014

- ✧ Recipient of both department awards for outstanding graduate student research.

PhD, Astrophysics, UC Berkeley

MAY 2014

MA, Astrophysics, UC Berkeley

MAY 2010

BS, Physics, Stanford University (concentration in theoretical physics)

JUNE 2008