Sean Ressler

CONTACT INFORMATION

University of California Berkeley
Department of Astronomy
407 Campbell Hall
Berkeley, CA 94720-3411 USA

smressle@berkeley.edu
http://w.astro.berkeley.edu/∼sressler

RESEARCH INTERESTS

Accretion disks, supermassive black holes, Sagittarius A*, collisionless plasmas, fluid dynamics.

EDUCATION

University of California Berkeley

Ph.D. Candidate, Physics (expected May 2019)

- Advisor: Eliot Quataert

North Carolina State University

B.S. in Physics and Applied Mathematics, May 2013

PUBLICATIONS

B. R. Ryan, **S. M. Ressler**, J. C. Dolence, C. F. Gammie, & E. Quataert, 2018, *Two-Temperature GRRMHD Simulations of M87*, ApJ, in press

S. M. Ressler, E. Quataert, & J. M. Stone, 2018, *Hydrodynamic Simulations of the Inner Accretion Flow of Sagittarius A* Fueled By Stellar Winds*, MNRAS, 478, 3544

B. Ryan, **S. M. Ressler**, J. C. Dolence, A. Tchekhovskoy, C. F. Gammie, & E. Quataert, 2017, *The Radiative Efficiency and Spectra of Slowly Accreting Black Holes*, ApJL, 844, L24

S. M. Ressler & T. Laskar, 2017, *Thermal Electrons in Gamma-Ray Burst Afterglows*, ApJ, 845, 150

S.M. Ressler, A. Tchekhovskoy, E. Quataert, & C. F. Gammie, 2017, *The Disc-Jet Symbiosis Emerges: Modeling the Emission of Sagittarius A* with Electron Thermodynamics*, MNRAS, 467, 3604

Z. Tang, S.P. Reynolds, & **S.M. Ressler**, 2017, *X-Ray and Gamma-Ray Emission from Middle-aged Supernova Remnants in Cavities. I. Spherical Symmetry*, ApJ, 227, 28

S.M. Ressler, A. Tchekhovskoy, E. Quataert, M. Chandra, & C. F. Gammie, 2015, *Electron Thermodynamics in GRMHD Simulations of Low-Luminosity Black Hole Accretion*, MNRAS,454, 1848

A. Tran, B. J. Williams, R. Petre,**S.M. Ressler**, & S. P. Reynolds, 2015, *Energy Dependence of Synchrotron X-Ray Rims in Tycho's Supernova Remnant*, ApJ, 812, 101

S.M. Ressler, S. Katsuda, S. P. Reynolds, K.S. Long, R. Petre, B. J. Williams, & P. F. Winkler, 2014, *Magnetic-field amplification in the thin X-ray rims of SN1006*, ApJ 790, 85

Selected Presentations

TAPIR Seminar, Caltech (06/2018)

Contributed Talk, Horizon Collaboration Meeting at the CCA in NYC.(01/2018)

Lunch Talk, U.C. Berkeley Astronomy Department (10/2017)

Contributed Talk, Horizon Collaboration Meeting at U.C. Berkeley (01/2017)

Narayan Group Meeting, Harvard CfA (01/2017)

Lunch Talk, U.C. Berkeley Astronomy Department (10/2016)

Poster Presentation, Simulations and Modelling of Relativistic MHD Accretion Discs Conference at Oxford University (07/2016)

Contributed Talk, Dynamics and Accretion At the Galactic Center Conference at the Aspen Center For Physics (02/2016)

Contributed Talk, Horizon Collaboration Meeting at U.C. Berkeley (01/2016)

Professional Service and Teaching

Since	2016	Referee, ApJ and MNRAS
Fall	2017	Grader, Astronomy 252, Stellar Physics (Graduate level)
Fall	2014	Graduate Student Instructor, Astronomy 160, Stellar Physics (Undergraduate level)
Spring	2014	Graduate Student Instructor, Physics 8B, Introductory Physics (E & M and Relativity)
Fall	2013	Graduate Student Instructor, Physics 8A, Introductory Physics (Mechanics)

Honors and Awards

2015-2018	NASA Earth and Space Science Fellow
2013-2014	Carl and Betty Helmholz Gateway Fellow
2013	College of Physical and Mathematical Sciences Scholarly Achievement Award
2013	Wesley Doggett Award for Scholarly Achievement

Grants

2018	ALMA Cycle 6 2018.1.01124.S *Resolving the SgrA* Accretion Disk at 2000 Schwarzschild Radii Using H30alpha Recombination Line* PI: Lena Murchikova, Co-Is: Roger Blandford, Eliot Quataert, Jin Koda, Juergen Ott, **Sean Ressler**
2017-2018	Extreme Science and Engineering Discovery Environment (XSEDE) TG-AST090038 – 1139345.0 SUs on COMET PI: Eliot Quataert, Co-I: **Sean Ressler**
2016	*Chandra* Theory Grant Cycle 18 *Modeling the X-ray Variability of Sagittarius A* in GRMHD Simulations* PI: Eliot Quataert, Co-Is: **Sean Ressler**, Alexander Tchekhovskoy, Joseph Neilsen