Contact Information Acoustics Division U.S. Naval Research Laboratory adith [at] ramamurti.com adith.ramamurti [at] nrl.navy.mil

4555 Overlook Ave. SW Washington, DC 20375

Education

Ph.D., Physics (Nuclear Theory)

Aug. 2013 - Nov. 2018

Stony Brook University, Stony Brook, NY

Advisor: Edward Shuryak

Dissertation: Recent progress in understanding the role

of monopoles in QCD

A.B., Mathematical Physics; A.B., Music

Sep. 2009 - May 2013

Brown University, Providence, RI

Advisor: Antal Jevicki

Senior Thesis: Quantization of symmetric spaces

Employment

Research Physicist

Nov. 2018 - PRESENT

Acoustics Division, U.S. Naval Research Laboratory,

Washington, DC

Publications and Pre-prints

A. Ramamurti and E. Shuryak, Extending the hydrodynamical description of heavy-ion collisions to the "outer edge" of the fireball, arXiv:1811.03655 [hep-ph].

A. Ramamurti, E. Shuryak, and I. Zahed, Are there monopoles in the quark-gluon plasma?, Physical Review D **97**, 114028, arXiv:1802.10509 [hep-ph].

A. Ramamurti and E. Shuryak, *Chiral symmetry breaking and monopoles in gauge theories*, Physical Review D **100**, 016007, arXiv:1801.06922 [hep-ph].

A. Ramamurti and E. Shuryak, Role of QCD monopoles in jet quenching, Physical Review D 97, 016010, arXiv:1708.04254 [hep-ph].

A. Ramamurti and E. Shuryak, An effective model of QCD monopoles, Nuclear Physics A **967**, 868-871, arXiv:1704.04467 [hep-ph].

A. Ramamurti and E. Shuryak, Effective model of QCD magnetic monopoles from numerical study of one- and two-Component Coulomb quantum Bose gases, Physical Review D **95**, 076019, arXiv:1702.07723 [hep-ph].

I. Iatrakis, A. Ramamurti and E. Shuryak, *Pomeron interactions from the Einstein-Hilbert action*, Physical Review D **94**, 045005, arXiv:1602.05014 [hep-ph].

I. Iatrakis, A. Ramamurti, and E. Shuryak, Collective string interactions in AdS/QCD and high-multiplicity pA collisions, Physical Review D **92**, 014011, arXiv:1503.04759 [hep-ph].

Talks and Conferences Gauge Topology III: From Lattice to Colliders European Center for Theoretical Physics, Trento, IT May 2018

Recent progress in understanding the role of monopoles in QCD

JETSCAPE Winter School and Workshop Lawrence Berkley National Lab, Berkeley, CA The role of QCD monopoles in jet quenching	Jan.	2018
Stony Brook Nuclear Theory Seminar Stony Brook University, Stony Brook, NY The role of QCD monopoles in jet quenching	Nov.	2017
XXVIth International Conference on Ultrarelativistic Nucleus-Nucleus Collisions (Quark Matter 2017) Chicago, IL An effective model of QCD monopoles	Feb.	2017
Gauge Field Topology Workshop Simons Center for Geometry and Physics, Stony Brook, NY QCD strings and their interactions from the holographic perspective	Aug.	2015

Skills

Programming Languages

- Expert: C++, Python, Unix shell (bash, tcsh), Mathematica, LATEX
- Intermediate: Fortran, Java, MATLAB

Programming Techniques

- Expert: Parallelization (MPI, openMP), Monte Carlo methods
- Intermediate: Machine learning, neural networks

Honors and Awards	magna cum laude Brown University, Providence, RI	May 2013
	Mildred G. Widgoff Prize for Excellence in Thesis Preparation Physics Department, Brown University, Providence, RI	May 2013