

Curriculum Vitae: Ralf Rapp

Education and Training

High School: "Abitur" 1987 (average 1.0), Koblenz-Karthause (Germany)
Undergraduate: Diploma (M.Sc.) in Physics, University of Bonn (Germany), 1993
Graduate: Research Center Jülich (Germany), Univ. of Illinois (Urbana-Champaign);
PhD Theoretical Nuclear/Hadron Physics, University of Bonn, 1996
Postdoctoral: Research Center Jülich, Theo. Nuclear/Hadron Physics, 1996;
SUNY at Stony Brook, Theo. Nuclear/Hadron/Heavy-Ion Physics, 1996-1999

Research and Professional Experience

1999-2001 Research Scientist, SUNY Stony Brook
2001-2002 Research Assistant Professor, SUNY Stony Brook
2002-2003 Research Assistant Professor, NORDITA (Copenhagen, Denmark)
2003-2006 Tenure Track Assistant Professor, Texas A&M University (College Station)
2006-2010 Associate Professor with Tenure, TAMU (College Station)
since 2010 Full Professor, TAMU (College Station)

Honors and Awards

1991 CERN Summer Student Fellowship
1994,1995 2 grad. student research fellowships (German Academic Ex. Serv., DAAD)
at Univ. of Illinois at Urbana-Champaign
1996-1999 Feodor-Lynen Fellowship (Alexander von Humboldt Foundation, Germany)
2003-2006 Adjunct Professor, SUNY Stony Brook
2004 U.S. National Science Foundation CAREER Award
2007 Friedrich Wilhelm Bessel Research Award (Humboldt Foundation)
2009 Robert S. Hyer Award by the Texas Section of the American Physical Society
2014 Fellow of the American Physical Society
2018,2019 Extreme Matter Institute (EMMI, Germany) Visiting Professor
2020 Texas A&M University Professorship

Funding

Host for Feodor-Lynen Fellow H. van Hees (Humboldt Foundation), "*Theoretical Studies of Hadronic and Partonic Matter in Heavy-Ion Experiments*", 2004-2005
U.S. National Science Foundation CAREER grant (\$602425 total, single PI), "*CAREER: Spectral Properties of Hot and Dense QCD Matter*", 2004-2010
Faculty mentor on TAMU Cyclotron NSF-REU grant, "*REU site: Nuclear and Particle Science at Texas A&M University*", 2004-date
Host for Fulbright Fellow D. Cabrera (through Spanish Minister of Edu.+Sci.), "*Mesons at Finite Density and Temperature and Applications to Heavy-Ion Collisions*", 2005-2007
US NSF standard grant on "*Electromagnetic and Heavy-Quark Probes of QCD Matter*" (\$450000, single PI), 2010-2013
US NSF continuing grant on "*QCD Matter Studies with Heavy Quarks and Dileptons*" (\$432000, single PI), 2013-2016
TAMU-Tsinghua/NSFC collaborative grant on "*Heavy Quarkonium Production in Heavy-Ion Collisions*" (\$25000+RMB50000 with P. Zhuang), 2014-2015
US NSF continuing grant on "*Radiation and Transport in QCD Matter*" (\$439000, single PI), 2016-2019
DOE-NNSA grant "Center of Excellence in Nuclear Training and University Based Research (CENTAUR)" (multi-PI; co-PI portion ca. \$350000), 2018-2023

US NSF continuing grant “Microscopic Properties of Hot and Dense QCD Matter”
(\$350000, single PI), 2019-2022

Publications and Presentations

- ca. 115+90 articles in scientific journals (refereed) + conference proceedings (mostly refereed)
- ca. 15800/13300 citations on all/published scientific articles (Inspire database), h-index 65/57
- ca. 150 invited talks and lectures at international conferences, workshops and schools
- ca. 100 colloquia, seminars and contributed conference talks

Three Key Publications:

1. R. Rapp, T. Schäfer, E.V. Shuryak and M. Velkovsky, *Diquark Bose Condensates in High Density Matter and Instantons*, Phys. Rev. Lett. **81**, 53-56 (1998) (ca. 1040 citations)
2. R. Rapp and J. Wambach, *Chiral Symmetry Restoration and Dileptons in Relativistic Heavy-Ion Collisions*, Adv. Nucl. Phys. **25**, 1-205 (2000) (ca. 840 citations)
3. H. van Hees, V. Greco and R. Rapp, *Heavy-Quark Probes of the Quark-Gluon Plasma at RHIC*, Phys. Rev. C **73**, 034913 (2006) (ca. 390 citations)

Classroom Teaching

1999-2002 course instr. of 3 undergrad. physics classes + recitations at SUNY Stony Brook
since 2003 course instructor of 30 physics under/graduate classes at Texas A&M to date

Selected Synergistic Activities

- Member of German (DPG, since 1993) and American (APS, since 1993) Physical Society, Texas Section of APS (TSAPS, since 2007)
- Referee for scientific journals: Phys. Rev. Lett., Phys. Rev. **C/D**, Rev. Mod. Phys., Phys. Lett. **B**, Nucl. Phys. **A**, Eur. Phys. J. **A/C**, J. Phys. **G**, Prog. Part. Nucl. Phys., Europhys. Lett., Can. J. Phys., Acta Phys. Pol., Braz. J. Phys., Int. J. Mod. Phys. **A/E**, J. High-Energy Phys., New J. Phys., Nucl. Inst. Meth. **B**, Centr. Eur. J. Phys.;
- Reviewer of grant proposals for U.S. NSF and DOE, DFG and MINERVA (Germany), U.S.-Israel BSF, FOM (Netherlands), INFN (Italy), NSC (Poland), NSERC (Canada)
- Introduced+directed *Saturday Morning Physics* for high school students at TAMU 2006-16
- Editorial Board Member of *Physics Handbook of Compressed Baryonic Matter (CBM) in Laboratory Experiments* (ca. 1000 pages, 2006-2010)
- Working group convener of: *Electromagnetic Probes at RHIC-II* (2004-08), *In-Medium Excitations* for CBM Physics Handbook (2006-10)
- Organizer of EMMI Rapid Reaction Task Force on *Extraction of Heavy-Flavor Transport Coefficient in QCD Matter* (2016)

Students and Postdoctoral Trainees supervised

Research Experience for Undergraduates (REU) adviser of 16 undergraduate students

Graduate Thesis adviser of:

L. Grandchamp PhD SUNY SB 2003; D. Sun MSc TAMU 2006; X. Zhao PhD TAMU 2010;
K. Huggins MSc TAMU 2012; I. Sarver MSc TAMU 2014; N. Holt PhD TAMU 2016;
S. Liu PhD TAMU 2018; X. Du PhD TAMU 2019, J. Atchison PhD expected 2021;
T. Onyango PhD exp. 2023; Z. Tang PhD exp. 2023; B. Wu PhD exp. 2024

Postdoctoral adviser of:

H. van Hees (FIAS Frankfurt, GER) 2004-08, M. Mannarelli (Gran Sasso, Italy) 2004-05,
W. Liu (TAMU) 2005, D. Cabrera (Valencia) 2005-07, L. Ravagli (London) 2006-07,
F. Riek (Frankfurt) 2008-10, M. He (Nanjing, CN) 2009-12, P. Hohler (Houston) 2011-15