

Pranjal Dhole (M.Sc.)

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Education

03.2016 - present	Master in Autonomous Systems Hochschule Bonn-Rhein-Sieg, Sankt Augustin, Germany
10.2012 - 08.2015	Master of Science in Physics University of Bonn, Germany CGPA: 1.8 ¹
06.2009 - 05.2012	Bachelor of Science in Physics, Mathematics and Chemistry (triple major) Christ University, Bangalore, India CGPA: 3.42 ²
2007 - 2008	Higher Secondary School Certificate Maharashtra State board, India

Work Experience

05.2015 - 11.2016	Doctoral Researcher Department of Behaviour and Brain Organization Research Center caesar, Bonn
09.2015 - 04.2016	Research Intern Department of Behaviour and Brain Organization Research Center caesar, Bonn
08.2014 - 09.2015	Student Assistant Bonn-Cologne Graduate School (BCGS) office, Bonn <u>Main tasks</u> : Organization of the intranet system, assistance in administrative tasks.
11.2013 - 03.2014	Student Assistant University of Bonn, Bonn <u>Task</u> : Preparation of lecture notes for course 'Advanced atomic, molecular and optical physics' taught by Prof. Dr. Michael Köhl at University of Bonn during WS2013-14.

¹The CGPA is according to the German Grading system. Grading scheme: 1.0 - 1.5 = very good ■ 1.6 - 2.5 = good ■ 2.6 - 3.5 = satisfactory ■ 3.6 - 4.0 = sufficient ■ 4.1 - 5.0 = fail.

²Grading scheme: 4.0 = Outstanding(A) ■ 3.67 = Excellent(A-) ■ 3.33 = Very Good(B+) ■ 3.00 = Good(B) ■ 2.67 = Average(B-) ■ 2.33 = Satisfactory(C+) ■ 2.00 = Pass (C) ■ 1.00 = Pass(D).

Projects and Theses

Research internship (09.2015 - 04.2016)	Extended 3D model for pupil-tracking Supervisor: Dr. David Greenberg Project Description: My project at CAESAR consisted of extending the 3D model for pupil-tracking from circular pupil, as previously done in lab [Wallace et al., <i>Nature</i> , 2013], to elliptical pupil and implementation of the pupil-tracking algorithm in the eye-tracking software developed at the lab.
M.Sc. Thesis (05.2014 - 05.2016)	Emergent Gravity and Cosmology: Thermodynamic perspective³ Supervisor: Prof. Dr. Claus Kiefer

Courses

M.Sc.	Physics Modules General Relativity and Cosmology 1 & 2 Quantum Field Theory 1 Advanced Quantum Mechanics Advanced Laboratory Course Seminar on Advanced General Relativity X-ray and radio observations of dark matter and dark energy Quasars and Microquasars Physics of Particle detectors Condensed Matter Physics Photonic devices
B.Sc.	Mathematics Modules Logics Advanced Calculus Differential equations Vector analysis Abstract Algebra Fourier transforms Real and complex analysis Numerical methods Physics Modules Classical Mechanics Electrodynamics Optics Quantum Mechanics Electronics and Instrumentation Astrophysics Nuclear Physics Chemistry Modules Physical Chemistry Inorganic Chemistry Organic Chemistry General Chemistry Biochemistry

Computer Skills

Programming skills	PYTHON; MatLab; Some knowledge of C++ and GPU computing.
Algebra	Mathematica.
Operating systems	Linux (Ubuntu and its variants), Windows 7 (proficient).
Web	HTML; CSS.
Media	L ^A T _E X; Microsoft Visual Basic; Adobe Illustrator.

Languages

English	Fluent
German	limited working proficiency (A2)
Marathi	Native language
Hindi	Native language

³The slides of my thesis defense are available at <http://www.thp.uni-koeln.de/gravitation/mitarbeiter/dhole.html>

Talks and Invited Seminars

- Masters Colloquium: ‘Emergent Gravity and Cosmology: Thermodynamic Perspective’, University of Bonn, May 22, 2015.
- Invited Talk - ‘Emergent Gravity - Thermodynamic Perspective’, BCGS Weekend Seminar at the Physikzentrum, Bad Honnef, Germany, April 19, 2015.

Awards and Prizes

- Scholarship €6,000 in total, Stiftung caesar, for period of 6 months starting Sept., 2015.
- 2nd place in Convergence – Inter-collegiate Mathematics fest 2011.
- 2nd place in Eureka – Intercollegiate Physics Festival 2011.
- 3rd place in Chemicus – Intercollegiate chemistry fest in crosswords (B. Sc. 5th Semester) 2011.
- 2nd place in Chemicus – Intercollegiate chemistry fest in 20 questions (B. Sc. 5th Semester) 2011.
- 2nd place in Intercollegiate Mathematics Quiz (B. Sc. 3rd semester) 2010.
- 1st place in Intercollegiate Mathematics Quiz at NMKRV (B. Sc. 3rd Semester) 2010.
- 2nd place in Intra-collegiate Mathematics Quiz (B. Sc. 2nd Semester) 2010.
- 1st place in Intra-collegiate Mathematics Mega Event (B. Sc. 2nd Semester) 2010.
- 3rd place in Inter-collegiate Science Quiz (B. Sc. 1st semester) 2009.

Attended Conferences and Graduate Schools

- ESI Systems Neuroscience Conference (ESISync), at FIAS, Frankfurt, Germany, July 7-8, 2016.
- Heidelberg Neuronal Ensemble Conference (HeiNEC), at Heidelberg, Germany, Oct. 9-10, 2015.
- Conference on Extended theories of Gravity, at Nordic Institute for Theoretical Physics (NORDITA), Stockholm, Sweden, March 9–14, 2015.
- 569 WE-Heraeus-Seminar: ‘Quantum Cosmology’, at the Physikzentrum, Bad Honnef, Germany, July 28 – August 01, 2014.
- Graduate school ‘From Classical to Quantum GR: Applications to Cosmology’, held at University of Sussex, Brighton, UK, April 23-25, 2014.
- Participation in the hosting committee for Planck Conference - 2013, University of Bonn, Germany.
- Research Education Advancement Program (REAP)-2009, Nehru Planetarium, Bangalore, India.

Academic References

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Work Reference

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