

# Pranjal Dhole (M.Sc.)

## Contact Information

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## Research and Professional Experience

05.2016 - 11.2016	<b>Doctoral Researcher</b> Department of Behaviour and Brain Organization Research Center caesar, Bonn
09.2015 - 04.2016	<b>Research Intern</b> Department of Behaviour and Brain Organization Research Center caesar, Bonn
08.2014 - 09.2015	<b>Student Assistant</b> Bonn-Cologne Graduate School (BCGS) office, Bonn <u>Main tasks:</u> Organization of the intranet system, assistance in administrative tasks.
11.2013 - 03.2014	<b>Student Assistant</b> 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.

## Education

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

## Projects and Theses

09.2015 - 04.2016	<b>Extended 3D model for pupil-tracking, <i>Research Internship</i></b> Supervisor: Dr. David Greenberg <u>Project Description:</u> 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.
05.2014 - 05.2016	<b>Emergent Gravity and Cosmology: Thermodynamic perspective<sup>3</sup>, <i>M.Sc. Thesis</i></b> Supervisor: Prof. Dr. Claus Kiefer

<sup>1</sup>The 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.

<sup>2</sup>Grading 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).

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

## Awards, Grants and Prizes

09.2015 - 03.2016	Scholarship €6,000 in total, Stiftung caesar, for period of 6 months.
2011	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).
2010	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).
2009	3rd place in Inter-collegiate Science Quiz (B. Sc. 1st semester).

## Invited Talks and Seminars

22.05.2015	<b>Emergent Gravity and Cosmology: Thermodynamic Perspective</b> , <i>Masters Colloquium</i> University of Bonn.
19.04.2015	<b>Emergent Gravity - Thermodynamic Perspective</b> , <i>Invited Talk</i> BCGS Weekend Seminar at the Physikzentrum, Bad Honnef, Germany.

## Courses

<b>M.Sc.</b>	<b>Physics Modules</b> 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>B.Sc.</b>	<b>Mathematics Modules</b> Logics   Advanced Calculus   Differential equations   Vector analysis   Abstract Algebra   Fourier transforms   Real and complex analysis   Numerical methods  <b>Physics Modules</b> Classical Mechanics   Electrodynamics   Optics   Quantum Mechanics   Electronics and Instrumentation   Astrophysics   Nuclear Physics  <b>Chemistry Modules</b> Physical Chemistry   Inorganic Chemistry   Organic Chemistry   General Chemistry   Biochemistry

## Attended Conferences and Graduate Schools

07.07.2016 - 08.07.2016	<b>ESI Systems Neuroscience Conference (ESISync)</b> , FIAS, Frankfurt, Germany.
09.10.2015 - 10.10.2015	<b>Heidelberg Neuronal Ensemble Conference (HeINEC)</b> , Heidelberg, Germany.
09.03.2015 - 14.03.2015	<b>Conference on Extended theories of Gravity</b> , Nordic Institute for Theoretical Physics (NORDITA), Stockholm, Sweden.
28.07.2014 - 01.08.2014	<b>569 WE-Heraeus-Seminar: ‘Quantum Cosmology’</b> , the Physikzentrum, Bad Honnef, Germany.
23.04.2014 - 25.04.2014	<b>From Classical to Quantum GR: Applications to Cosmology</b> , Graduate school, University of Sussex, Brighton, UK.
2013	<b>Planck Conference</b> , University of Bonn, Germany.
2009	<b>Research Education Advancement Program (REAP)</b> , Nehru Planetarium, Bangalore, India.

## Technical Skills

Programming skills	Python, MatLab, C++, ROS.
Web development	HTML, CSS, jQuery, JavaScript.
Algebra	Mathematica.
Media	L <sup>A</sup> T <sub>E</sub> X, Microsoft Visual Basic, Adobe Illustrator.
Operating systems	Linux (Ubuntu and its variants), Windows 7 (proficient).

## Languages

English	Fluent
German	limited working proficiency (B1.1)
Marathi	Native language
Hindi	Native language

## Academic References

Prof. Dr. Claus Kiefer  
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## Work Reference

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