Chaitanya S. Gokhale

Post-Doctoral Researcher/Lecturer, New Zealand Institute for Advanced Study,
Massey University, Auckland, New Zealand

Personal Data

Citizenship:	Indian
Place and Date of Birth:	Pune, Maharashtra, India | 17 June 1984
Current Address (Work):	Oteha Rohe, Building 16, Albany, Auckland New Zealand
email:	c.gokhale@massey.ac.nz
Website:	http://gokhalechaitanya.github.io

Awards & Fundings

Royal Society of NZ	Marsden Fund 2015-2018: Associate Investigator with Paul B. Rainey "Lineage selection and the evolution of cancer".
BMC Ecology	March 2013: Winner in Theoretical Ecology Image competition.
DFG Priority Programme	August 2012: Principal Investigator grant - Schwerpunktprogramme (SPP) 1590 "Probabilistic Structures in Evolution" from the Deutsche Forschungsgemeinschaft (DFG)
Otto Hahn Medal	June 2012: Max Planck Society

Education

March 2011 — Doctorate in Natural Sciences,
Christian Albrechts University, Kiel
Max Planck Institute for Evolutionary Biology, Plön
Thesis: "Evolutionary dynamics on multi-dimensional fitness landscapes"
Advisor: Dr. Arne Traulsen
Grade: *Summa cum laude*

January 2008 — Master of Science in Bioinformatics
Sikkim Manipal University of Health Medical and Technological Sciences
Thesis: "*Ab initio* calculations on the HGPRT active site and the analysis of select mutations"
Advisor: Dr. Mrinalini Puranik
Score: 187/200

July 2005 — Bachelor of Science in Zoology and Biotechnology
Fergusson College, Pune University

April 2002 — Higher Secondary School Certificate
Maharashtra Institute of Technology

June 2000 — Secondary School Certificate
Dr. Shamarao Kalmadi High School

Academic Experience

March 2014 - March 2016	New Zealand Institute for Advanced Study, Massey Uniersity, Auckland, New Zealand
March 2011 - January 2014	Max Planck Institute for Evolutionary Biology, Plön, Germany
July-August 2013	Max Planck Institute for Anthropology, Leipzig, Germany
February-March 2013	Kavli Institute for Theoretical Physics, Santa Barbara, U.S.A.
June 2010	Santa fe Institute, Santa Fe, U.S.A.
March-May 2007	National centre For Biological Sciences, Bangalore, India
August 2006	Center for cellular and molecular biology, Hyderabad, India
March-April 2005	Haffkine Bio-Pharmaceutical Corporation Ltd, Bangalore, India

Reviewing

Editorial Board:	(forthcoming in 2016) Journal of Evolutionary Biology
Journals:	Dynamic Games and Applications, Ecology Letters, Europhysics Letters, Evolution, Journal of the Royal Society: Interface, Journal of Theoretical Biology, Journal of Mathematical Biology, Mathematical Biosciences, Proceedings of the National Academy of Sciences, U.S.A. Proceedings of the Royal Society B: Biological Sciences, PLoS Computational Biology PLoS One, Theoretical Population Biology
Committee:	PhD Thesis evaluation committee, Massey University, 2015 L'ORÉAL Austria - Fellowship for Young Female Scientists in Basic Research, 2014 Santa Fe Institute's Complex System Summer School, 2011

Teaching

2015	Evolutionary Biology:	Coevolution
		Cooperation and Conflict
		Evolutionary Game Theory
2014	Evolutionary Biology:	Origin of Genetic Variation
		Origin of Phenotypic variation

Languages

Mother tongue:	Marathi
Fluent:	English, Hindi, German
Intermediate:	Gujrathi
Beginner:	Sanskrit, French, Spanish

References

Prof. Dr. Arne Traulsen (traulsen@evolbio.mpg.de)
Max-Planck-Institut for Evolutionary Biology
August-Thienemann-Str.2 D-24306 Plön, Germany

Prof. Dr. Hinrich Schulenburg (hschulenburg@zoologie.uni-kiel.de)
Chair: Evolutionary Ecology Genetics Zoological Institute CAU Kiel
Am Botanischen Garten 1-9 24118 Kiel · Germany

Dr. Anshu Bhardwaj (anshu@igib.res.in)
Institute of Genomics and Integrative Biology,
Mall Road, Delhi - 110 007 India Alternate e-mail - anshu@csir.res.in

Publications (16 published, 4 submitted and 2 theses)

Submitted: Papkou A., **Gokhale C. S.**, Traulsen A. and Schulenburg H. S.
Host–parasite coevolution: Why changing population size matters

Gokhale C. S., Traulsen A., Ziemann M., and Milinski M.
Do human noses signal MHC immunogenes?

Gokhale C. S., Traulsen A., and Joop G.
Social dilemma in the external immune system of the red flour beetle? It's a matter of time

Gokhale C. S. and Hauert C.
Eco-evolutionary game dynamics of social dilemmas

2015: Pichugin Y., **Gokhale C. S.**, Garcia J., Traulsen A, Rainey P. B.
Modes of migration and multilevel selection in evolutionary multiplayer games
Journal of Theoretical Biology (2015)

Song Y., **Gokhale C. S.**, Papkou A., Schulenburg H. S. and Traulsen A.
Host-parasite coevolution in populations of constant and variable size
BMC Evolutionary Biology, 15 (1), 212 (2015)

Bauer B. and **Gokhale C. S.**
Repeatability of evolution on epistatic landscapes
Scientific Reports 5, 9607

2014: **Gokhale C. S.**, Reeves R. G., and Reed F. A.
Dynamics of a combined medea-underdominant population transformation system
BMC Evolutionary Biology, 14 (1):98 (2014)

Gokhale C. S., and Traulsen A.
Evolutionary Multiplayer Games
Dynamic Games and Applications, 4 (4), 468-488, (2014)

2013: **Gokhale C. S.**, Papkou A., Traulsen, A. and Schulenburg H. S.
Lotka-Volterra dynamics kills the Red Queen: population size fluctuations and associated stochasticity dramatically change host-parasite coevolution
BMC Evolutionary Biology, 13 (1), 254 (2013)

Wu, B., Traulsen, A. and **Gokhale C. S.**
Dynamic properties of evolutionary multi-player games in finite populations
Games, 4 (2), 182-99 (2013)

Wu, B., **Gokhale C. S.**, van Veelen M., Wang, L., and Traulsen A.
Interpretations arising from Wrightian and Malthusian fitness under strong frequency dependent selection
Ecology and Evolution, 3 (5), 1276–1280, (2013)

2012: **Gokhale C. S.**, Traulsen A.
Mutualism and evolutionary multiplayer games: Revisiting the Red King
Proceedings of the Royal Society B, 279 (1747), 4611-4616 (2012)

Wu B., **Gokhale C. S.**, Wang L., Traulsen A.
How small are small mutation rates?
Journal of Mathematical Biology, 64 (5), 803-827 (2012)

Han T. A., Traulsen A., **Gokhale C. S.**
On equilibrium properties of evolutionary multiplayer games with random payoff matrices
Theoretical Population Biology, 81, 264-272 (2012)

2011: **Gokhale C. S.**
Evolutionary dynamics on multi-dimensional fitness landscapes
Doctoral Thesis (2011),
http://eldiss.uni-kiel.de/macau/receive/dissertation_diss_00006381

Gokhale C. S., Traulsen A.
Strategy abundance in evolutionary many player games with multiple strategies.
Journal of Theoretical Biology, 283, 180-191. (2011)

2010: **Gokhale C. S.**, Traulsen A.
Evolutionary games in the multiverse.
Proc. Natl. Acad. Sci. U.S.A., 107, 5500-5504 (2010)
Selected for *Complexity Digest* 2010.08

Altrock P.M., **Gokhale C. S.**, Traulsen A.
Stochastic slowdown in evolutionary processes.
Phys. Rev. E 80, 011909 (2010).
Selected for the *Virtual Journal of Biological Physics Research*.

2009: Bhardwaj A., Mukerji M., Sharma S., Paul J., **Gokhale C. S.**, Srivastava A. K., Tiwari S.
MtSNPscore: A combined evidence approach for assessing cumulative impact of mitochondrial variations in disease.
BMC Bioinformatics, 10 (Suppl 8), S7 (2009)

Gokhale C. S., Y Iwasa, Nowak M.A., Traulsen A.
The pace of evolution across fitness valleys.
Journal of Theoretical Biology, 259, 613-620 (2009)

2007: **Gokhale C. S.**
Ab initio calculations on the HGPRT active site and analysis of select mutations
Masters Thesis (2007)