

Curriculum vitae

1 Personal information

Name: Debsankha Manik

Date of birth: 4th August, 1990

Nationality: Indian

E-mail: dmanik@nld.ds.mpg.de

Homepage: <http://www.nld.ds.mpg.de/people/manik>

2 Education:

2008 – 2013: Integrated BS-MS in Physics at IISER Kolkata. Final GPA: 9.02/10.

3 Research:

12/2013 – present: PhD candidate at the Max-Planck-Institut für Dynamik und Selbstorganisation. Supervisors: Dr. Marc Timme and Dr. Eleni Katifori.

4 Fields of interest:

Stability of supply networks, synchrony and Braess' paradox.

5 Publications

- Manik *et al.*, "Supply networks: instability without overload", *Eur. Phys. J. ST* 223.12, **2014:** 2527-2547.
- Sorge, Manik, Herminghaus, Timme, "Towards a unifying framework for demand-driven directed transport (D3T)", *Proceedings of the 2015 Winter Simulation Conference*, (*accepted*).
- Manik, Witthaut & Timme, "Geometric frustration and multistability in oscillator networks", (*in preparation*).

6 Conferences contributions

- **06/2014:** Poster titled "Geometric frustration : instability without overload" in the conference *Let's face chaos through nonlinear dynamics*, University of Maribor, Slovenia.
- **09/2014:** Talk titled "Fundamental cycles and multistability in the Kuramoto model and power grids" in the conference *Dynamics days Europe*, University of Bayreuth, Germany.

7 Fellowships/Awards

- **2014:** Max Planck stipend of the IMPRS for Physics of Biological and Complex Systems for doctoral research.
- **2013:** Director's Gold Medal for top scores in the Department of Physics of IISER Kolkata.
- **2012:** "A new passage to India" fellowship from DAAD.
- **2007:** KVPY fellowship by the DST, Govt. of India.

8 Teaching

- **Winter semester 2013:** "Bioacoustic Data Analysis" , *Dept. of Physics, Georg-August-Universität Göttingen.*
- **Winter semester 2013:** "Introduction to Python for Scientific Programming" , *Dept. of Physics, Georg-August-Universität Göttingen.*
- **Winter semester 2014:** "Network Analysis using Networkx" , *GGNB method course.*
- **Summer semester 2015:** "Introduction to Python for Scientific Programming" , *Dept. of Physics, Georg-August-Universität Göttingen.*
- **Summer semester 2015:** "Network Analysis using Networkx" , *GGNB method course.*

9 Internships/Schools

- **2013:** National Center for Biological Sciences (NCBS), Bangalore, India.
- **2012:** Max-Planck-Institut für Dynamik und Selbstorganisation, Göttingen, Germany.
- **2011:** Indian Institute for Science (IISc), Bangalore, India.

10 Computer and Programming Skills:

- **Programming languages:** Python, C, Octave/MATLAB, perl.
- **Scientific computing softwares:** gnuplot, python-matplotlib (data visualization), networkx (network analysis), vpython (3-d animation).