# Sreyam Sengupta

#### Personal and contact

Address: Institute of Science and Technology Austria, Email (w): sreyam.sengupta@ista.ac.at

Am Campus 1, Email (p): sreyam.sengupta@gmail.com

3400 Klosterneuburg, **Phone:** +43(0)68120208207 Austria. **DOB:** 07 September 1994

Website: https://www.sreyamsengupta.com/ Nationality: Indian

#### Education

2019 - present Master student at Institute of Science and Research Austria (ISTA), supervised

by Gašper Tkačik and Édouard Hannezo.

2013 - 2018 BS-MS in Physics, Indian Institute of Science Education and Research Kolkata

(IISER-K), Department of Physical Sciences; GPA 8.75 out of 10 (absolute scale).

2013 ISC (12<sup>th</sup> grade board exam), Don Bosco School, Kolkata; 96.75% marks (top

1% among all students) in English, Mathematics, Physics and Computer Science.

2011 ICSE (10<sup>th</sup> grade board exam), Don Bosco School, Kolkata; 93.2% marks

in English, Computer Applications, Mathematics, Environmental Education and

Science.

## Current research projects

• Efficacy of active regulation vs passive bet-hedging in colonies of single-celled organisms in stochastically fluctuating environments.

 Principles and biophysical mechanism of symmetry-breaking in stem cells making binary fate choices.

## Previous research experience

2017 - 2018 Master thesis with Pushan Majumdar, Indian Association for the Cultivation of

Science (IACS) Kolkata; Project: developing and optimizing an algorithm applied

in computational quantum field theory.

Spring 2017 Semester research with Koel Das, IISER-K; Project: trying to predict incidence

of autism spectrum disorder from EEG data.

Summer 2015 Summer research with Ananda Dasgupta, IISER-K; Project: describing uni-

formly accelerated observers in special relativity using Bondi k-calculus.

Link to Google Drive repository of project reports here.

#### Skills

Natural languages Bengali (native), English (bilingual), Hindi (fluent), German (B1)

Programming languages Fortran (intermediate), R (intermediate), C (proficient), Python (profi-

cient)

Software and libraries Mathematica, MATLAB, gnuplot, Origin, LaTeX, NumPy, PyTorch,

scikit-learn

### Seminars, camps and schools attended

• Development and Stem Cells: Regional meeting hosted by Research Institute of Molecular Pathology (IMP) Vienna on May 6, 2022.

- SY-Stem (March 23-25, 2022) hosted by IMP and Institute of Molecular Biotechnology (IMBA) Vienna from March 23-25, 2022.
- Current Trends in Modern Physics hosted by IISER-K in April 2017.
- Global Initiative of Academic Networks (GIAN) course Superoscillations and Weak Measurement taught by Michael Berry, and hosted by Prasanta Panigrahi at IISER-K.
- Current Trends in Modern Physics course Gravitation and High Energy Physics hosted by IISER-K in November 2016.
- National Initiative on Undergraduate Sciences (NIUS) enrichment camp 11.1 hosted by Homi Bhabha Centre for Science Education, a national centre of the Tata Institute of Fundamental Research (TIFR) in Mumbai, India in June 2014.

## **Fellowships**

• Scholarship for Higher Education awarded by the Department of Science and Technology of the Indian Government, to students in the 99th percentile of 12th grade school-graduating exam scores.

#### GRE and TOEFL test scores

- **TOEFL:** test taken 22 July 2017. Scaled scores: reading 30/30, listening 30/30, speaking 28/30, writing 30/30.
- General GRE: test taken 12 July 2017. Scaled scores: verbal reasoning 170/170 (99th percentile), quantitative reasoning 167/170 (92nd percentile), analytical writing 5.5/6 (98th percentile).
- Physics GRE: test taken 18 November 2017. Scaled score: 910/990 (86th percentile).

## References

Name	Institute	Email
Prof. Ananda Dasgupta	IISER-Kolkata	adg@iiserkol.ac.in
Prof. Edouard Hannezo	IST Austria	Edouard.Hannezo@ist.ac.at
Prof. Bernat Corominas-Murtra	University of Graz	bernat.corominas-murtra@uni-graz.at
Prof. Bhavtosh Bansal	IISER-Kolkata	bhavtosh@iiserkol.ac.in
Prof. Narayan Banerjee	IISER-Kolkata	narayan@iiserkol.ac.in