Shrey Aryan

https://github.com/shrey183/

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EDUCATION

- **ETH Zurich** — Zurich, Switzerland
  Master of Science in Mathematics — 2020-

  - **ETH Foundation**: Excellence Scholar

  - **Relevant Courses**: Probability Theory (Discrete Stochastic Processes), Elliptic Regularity Theory (De Giorgi-Nash-Moser Theorem, Regularity of Harmonic Maps and Gauge Theory), Semester Paper on PDEs (wrote a detailed proof of the main theorem in Prof. M. Struwe's paper on a global compactness result for elliptic boundary value problems), Semester Paper on Probabilistic Machine Learning (implemented and performed experiments on the Stein Variational Gradient Descent algorithm), Seminar on Topics in Harmonic Analysis (presented the proof of Calderon-Zygmund Decomposition Theorem), Reading Course in Optimal Transport (presented Champion and Pascale's paper on the Monge problem in $\mathbf{R}^d$).

- **Ecole Polytechnique** — Palaiseau, France
  Bachelor of Science in Mathematics and Computer Science — 2017-2020

  - **Cumulative GPA**: 4.11/4.30   (Class Valedictorian)

  - **Relevant Courses**: Linear Algebra, Introduction to Analysis, Discrete Mathematics, Mathematical Methods for Physics I & II, Algebra - Reduction of Endomorphisms, Integral and Differential Calculus, Computational Mathematics, Mathematical Modeling, Euclidean and Hermitian Spaces, Topology and Multivariable Calculus, Probability, Statistics of Finite Samples, Algorithms for Discrete Mathematics, Quadratic Forms and Applications, Series of Functions & Differential Equations, Numerical Linear Algebra and Numerical Optimization, Measure Theory, Topology and Differential Calculus, Asymptotic Statistics, Stochastic Process and Topics in Differential Geometry

PUBLICATIONS/PREPRINTS

- Existence of two-solitary waves with logarithmic distance for the nonlinear Klein-Gordon equation. To appear in Communications in Contemporary Mathematics. https://arxiv.org/abs/2010.04852

- Stability of Hardy Littlewood Sobolev Inequality under Bubbling. https://arxiv.org/abs/2109.12610