

Shuaishuai Duan

Email: shduan@edu.hse.ru

Institution: Higher School of Economics, Moscow

Interests

Langlands Program, Algebraic Number Theory, Representation Theory, Arithmetic Geometry

Education

- 09/2021 – **Higher School of Economics** – Moscow, Russia
Present Master in Mathematics (with full scholarship)
Institution: Faculty of Mathematics
Supervisor: Marat Rovinsky
- 09/2020 – **University of Reading** – Reading, UK
07/2021 Bachelor in Mathematics (First Class Honors)
Institution: Department of Mathematics and Statistics
Supervisor: John Evens
- 09/2017 – **Nanjing University of Information Science and Technology** – Nanjing, China
07/2020 Bachelor in Mathematics (Double degree program joint with University of Reading)
Institution: Reading Academy
GPA: 3.8/5.0

Term paper and graduation thesis

- 2022 Term paper: Representations of Totally Disconnected Locally Compact Groups
2021 Bachelor thesis: Representation Theory and Representations of $GL(2, \mathbb{F}_{p^n})$

Activities

- 28/08/2022 – **Automorphic Forms Summer School (Erdős Center - Alfréd Rényi Institute of Mathematics)**
02/09/2022 Contents: Introduction to the p-adic Langlands Program, modular forms, sphere packing, and energy minimization, equidistribution in automorphic families, estimates for L-functions

- 01/2021 – **Arizona Winter School (The Southwest Center for Arithmetic Geometry)**
05/2021 Contents: Modular forms, modular groups, quadratic forms, local-global principal
- 09/2020 – **Frontier Courses for Postgraduates (Guangxi Center for Mathematical Research)**
12/2020 Contents: Representation theory
- 09/08/2020 – **Mini-course on Number Theory (Xiamen University)**
17/08/2020 Contents: Modular forms, introduction to Galois representation
- 20/07/2020 – **Summer Course on Algebraic Geometry (Shanghai Center for Mathematical Sciences)**
31/07/2020 Contents: Algebraic Geometry, algebraic curves, commutative algebra
- 12/07/2020 – **Summer Course on Geometry and Topology (Sichuan University)**
25/07/2020 Contents: Methods of linear algebra in algebraic geometry, hyperbolic geometry
- 06/07/2020 – **Summer Course on Digraph Theory (School of Mathematics, Shandong University)**
11/07/2020 Contents: Digraph theory: connectivity, branching, Hamiltonian cycles and paths, orientations, flows, classes of digraphs
- 09/2019 – **Algebra Seminar for Graduate Students (NUIST)**
01/2020 Contents: Ring theory
- 07/2019 **“The Road to Mathematics” Summer School (Harbin Institute of Technology)**
Contents: Algebraic number theory, curves models that meet Baker’s bound, commutative algebra

Patent

Absorptive Insulin Syringe

Designing and improving the core components of the syringe, participating in the internal layout and design of the syringe, using CAD to draw the details of the syringe and the overall patent image