

Kristian KIRADJIEV

PERSONAL DATA

PLACE AND DATE OF BIRTH: Sofia, Bulgaria | 5 March 1993
ADDRESS: University College, High Street, OX1 4BH, Oxford, Oxfordshire, UK
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EDUCATION

OCTOBER 2016 Commenced a DPHIL study in INDUSTRIALLY FOCUSED MATHEMATICAL MODELLING CDT, **Mathematical Institute, University College, University of Oxford**
DPhil research is on MODELLING REMOVAL OF SULPHUR DIOXIDE FROM FLUE GAS in collaboration with W. L. Gore and Associates.

OCT 2012 – JUN 2016 MMATH MATHEMATICS, **Christ Church College, University of Oxford**, Oxford
FIRST CLASS with DISTINCTION and ranked in top 10

SEPT 2007 – JUN 2012 Diploma for High School Education at the **American College of Sofia**, Sofia, Bulgaria
Graduated *summa cum laude*, GPA: 6.00/6.00
VALEDICTORIAN of the College
Awarded FLOYD BLACK AWARD for hard work, honesty, respect, responsibility and love for learning, MATHEMATICS DEPARTMENT AWARD and FOREIGN LANGUAGES DEPARTMENT AWARD

WORK AND RESEARCH EXPERIENCE

SEPT 2019 – MAR 2020 | Stipendiary Lecturer in Mathematics at THE QUEEN'S COLLEGE, University of Oxford
Subject: Part A: Differential Equations, Quantum Theory, Prelims: Geometry
Hold classes and help students with the material and their problem sheets.

JAN – MAR 2019 | Tutor/Instructor at the MATHEMATICAL INSTITUTE, University of Oxford
Subject: Continuum Models in Industry (specialist course for PhD students at the InFoMM CDT)
Held classes and helped students with the material and their problem sheets. Also gave a one-off lecture replacing the lecturer.

JAN – MAR 2018 | College Tutor at UNIVERSITY COLLEGE, University of Oxford
Subject: Fluids and Waves (Part A course)
Held classes and marked students' works. Interviewed students during admissions for mathematics at the college. Also marked for the MAT exam for the college and for the Mathematical Institute.

OCT 2017 – MAR 2019 | Teaching assistant at the MATHEMATICAL INSTITUTE, University of Oxford
Subjects: Viscous Flow (Part B course, 2 sets of classes), Mathematical Geoscience (Part C course, 2 sets of classes), Applied Complex Variables (Part C course, 2 sets of classes)
Marked students' works and presented problems in class. Also tutored university-level Calculus.

JUL – SEPT 2015 | Summer Research Project at the MATHEMATICAL INSTITUTE, University of Oxford
Supervisor: Prof. Christopher Breward
Modelled purification of natural gas through a filter, obtaining analytical and numerical results. Wrote a detailed report.

JUN – JUL 2015 | Intern at the Administration Sector of the MINISTRY COUNCIL OF BULGARIA, Sofia

Collected data, analyzed and updated databases. Performed analysis on the concept of Open Data (data accessible to the public). Helped organize a conference regarding the implementation of Open Data Portal.

SEPT – OCT 2014 Intern at RAIFFEISENBANK BULGARIA EAD, Financial Institutions and Sovereignty Department, Sofia
Mentored by an analyst, updated databases, performed basic data analysis. Prepared a weekly bulletin. Helped writing and translating official presentations, articles and reports.

RECENT SCHOLARSHIPS AND AWARDS

JULY 2019 G A PAUL SCHOLARSHIP for postgraduate research excellence, University College, Oxford
MARCH 2019 GOLD DE MONTFORT MEDAL for excellence in the Mathematical Sciences, STEM for BRITAIN
SEPTEMBER 2018 GRAHAM HOARE PRIZE for a winning article, published in *Mathematics Today*, IMA
JUNE 2018 LANGUAGE CENTRE PRIZE for the best presentation in the Language Centre, Oxford
NOVEMBER 2017 PRIZE-WINNER IN TAKEAIM COMPETITION for impact of DPhil project, Smith Institute
SEPTEMBER 2017 ECM CATHERINE RICHARDS PRIZE for a winning article, published in *Mathematics Today*, IMA
OCTOBER 2016 OXFORD-RADCLIFFE SCHOLARSHIP, University College
JUNE 2016 INSTITUTE OF MATHEMATICS AND ITS APPLICATIONS PRIZE for outstanding performance in Honour School of Mathematics, Part C exams, University Of Oxford
JUNE 2016 ROACH PRIZE for the most outstanding undergraduate across the branches of Science, Christ Church College
JUNE 2016 HOOKE PRIZE for the most outstanding undergraduate, placed proportionately highest, across the branches of Science, Christ Church College
OCT 2012 – JUN 2016 FOUR COLLECTION PRIZES for performance in exams, Christ Church College
OCT 2012 – JUN 2016 OXFORD MAN SCHOLARSHIP, University of Oxford

MEMBERSHIPS AND SOCIETIES

OCTOBER 2019 Development Team Officer and HEVO at the Oxford University Volleyball Club (OUVC)
MARCH 2019 Member of the Society of Chemical Industry (SCI)
FEBRUARY 2018 Member of the Special Interest Group (SIG) on Cleaning and Decontamination
FEBRUARY 2018 Member of the Society of Industrial and Applied Mathematics (SIAM)
OCTOBER 2017 Member of the European Mathematical Society (EMS)
OCTOBER 2016 Member of the Oxford Centre for Industrial and Applied Mathematics (OCIAM)
OCTOBER 2016 Associate Member of the Institute of Mathematics and Its Applications (IMA)
OCTOBER 2016 Associate Member of the London Mathematical Society (LMS)
OCTOBER 2012 Representative of the Christ Church Mathematics Society
OCTOBER 2012 Member of the University of Oxford Mathematics Society – THE INVARIANTS

CONFERENCES/STUDY GROUPS/WORKSHOPS

RECURRENT Industrial and Interdisciplinary Workshops, Oxford
RECURRENT Industrial and Applied Mathematics Seminar, Oxford
SEPTEMBER 2019 HEVO Volleyball England Conference, Kettering
SEPTEMBER 2019 Workshop for Philip Maini's 60th Birthday, Oxford
JULY 2019 International Congress on Applied Mathematics, ICIAM (talk), Valencia
JULY 2019 Special Interest Group in Decontamination and Cleansing, Oxford (talk)
JULY 2019 ECMI Modelling Week, Grenoble
JUNE 2019 Mathematical Problems in Industry, New Jersey
MARCH 2019 European Study Group in Industry, Warsaw
DECEMBER 2018 European Study Group in Industry, Nicosia
NOVEMBER 2018 ECM Autumn Conference, London (invited speaker)
JULY 2018 European Study Group in Industry, Bath
JUNE 2018 Workshop for Sam Howison's 60th Birthday, Oxford
JUNE 2018 European Consortium for Mathematics in Industry (ECMI) Conference, Budapest (talk)
MARCH 2018 British Applied Mathematics Colloquium (BAMC), St. Andrews (talk)
JANUARY 2018 Special Interest Group in Decontamination and Cleansing, Bath (talk)
NOVEMBER 2017 ECM Autumn Conference, Edinburgh (invited speaker)
APRIL 2017 Environmental Modelling in Industry Study Group, Cambridge
APRIL 2017 UK Modelling Camp, Oxford

LANGUAGES

BULGARIAN: Mother tongue
ENGLISH: Fluent
GERMAN: Intermediate
RUSSIAN: Intermediate

COMPUTER SKILLS

Work with: Microsoft Office, MATLAB, *Mathematica*, C++, \LaTeX , LINUX, ubuntu
Basic Knowledge: HTML, FreeFem++, COMSOL, StarCCM+

PUBLICATIONS

- 2019 K. B. Kiradjiev. "Polygons and Complex Trigonometric Identities without Complex Numbers." *Mathematical Gazette*, November 2020.
- 2019 K. B. Kiradjiev et al. "Maxwell-Type Models for the Effective Thermal Conductivity of a Porous Material with Radiative Transfer in the Voids." *International Journal of Thermal Sciences*, 145, November 2019.
- 2018 K. B. Kiradjiev, C. J. W. Breward, I. M. Griffiths. "Surface-Tension- and Injection-Driven Spreading of a Thin Viscous Film." *Journal of Fluid Mechanics*, 861, pp. 765–795, December 28, 2018.
- 2017 K. B. Kiradjiev. "Connecting the Dots with Pick's Theorem." *Mathematics Today*, IMA, December 2018.
- 2017 K. B. Kiradjiev. "Exploring Steiner Chains with Möbius Transformations." *Mathematics Today*, IMA, December 2017.
- 2012 K. B. Kiradjiev. "Quadruples of Prime Numbers with Prime Complement in an Arithmetic Progression." *Mathematics*, vol. 3, Sofia, 2012.
- 2011 K. B. Kiradjiev. "A Generalisation of a Problem from IMO 2011." *Mathematics*, vol. 5, Sofia, 2011.

PROJECTS AND REPORTS

- 2019 K. B. Kiradjiev et al. "Drug Delivery into the Eye." Report on modelling week, Grenoble, July 2019.
- 2019 D. A. Edwards et al. "Parametric Models for Clinical Measurements in Ophthalmology." Report on study group, New Jersey, June 2019.
- 2019 K. B. Kiradjiev et al. "Finding a Fair Heat-Settlement Model." Report on study group, Warsaw, March 2019.
- 2019 I. M. Griffiths et al. "Optimising the Performance of a Conical Ceramic Membrane." Report on study group, Nicosia, February 2019.
- 2017 W. Lee et al. "Robustness of Fabricated Snack Take-off." Report on study group, Bath, July 2018.
- 2017 B. Hankin et al. "Risk-Based Analysis of Small Scale, Distributed, Nature-Based Flood Risk Management Measures Deployed on River Networks." Report on study group, Cambridge, October 2017.
- 2015 Written report for research project, titled "Desulphurisation of Natural Gas"
- 2014 Presentation for the Mathematics Society at Christ Church – "Mathematical Modelling of Epidemics and Infectious Diseases"
- 2012 Senior Independent Honours Project (in high school) – "Optimisation of the Queuing Process in the School Cafeteria" (inc. social, technical, financial issues)

INTERESTS AND ACTIVITIES

Swimming, Tennis, Reading, Teaching, Foreign languages, Playing the piano, Travelling

REFEREES

Prof. Chris Breward – Mathematical Institute, Oxford, breward@maths.ox.ac.uk
Prof. Ian Griffiths – Mathematical Institute, Oxford, ian.griffiths@maths.ox.ac.uk
Prof. Sam Howison – Mathematical Institute, Oxford, howison@maths.ox.ac.uk