

# Jan Vonk

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CONTACT	Mathematical Institute Snellius Building Niels Bohrweg 1 2333 CA Leiden (Netherlands)	<b>Date of birth:</b> 28 June, 1989 <b>Citizenship:</b> Belgian <a href="http://pub.math.leidenuniv.nl/~vonkjb/">pub.math.leidenuniv.nl/~vonkjb/</a> <a href="mailto:j.b.vonk@math.leidenuniv.nl">j.b.vonk@math.leidenuniv.nl</a>
ACADEMIAE	<b>Ghent University / University of Iceland</b> <b>University of Cambridge</b> <b>University of Oxford</b>  <b>CRM / McGill University</b> , Montréal <b>University of Oxford</b> <b>Institute for Advanced Study</b> , Princeton <b>University of Leiden</b>	BSc in Mathematics 2010 MASt in Mathematics 2011 DPhil in Pure Mathematics 2015  Postdoc 2015 – 2018 Postdoc 2018 – 2019 Postdoc 2019 – 2020 Assistant Professor (UD) 2020 – 2022 Associate Professor (UHD) 2022 – 2023 Professor (Hoogleraar) 2023 –
AWARDS	ERC Starting Grant 101076941 VIDI Grant 213.084 Gianturco Junior Research Fellowship Leathersellers' Scholarship Light Senior Scholarship Braithwaite-Batty Scholarship	<i>European Research Council, €1.5M</i> 2023 <i>NWO Netherlands, €800K</i> 2022 <i>Linacre College, Oxford</i> 2018 <i>St. Catherine's College, Oxford</i> 2013 <i>St. Catherine's College, Oxford</i> 2012 <i>Emmanuel College, Cambridge</i> 2010
SUPERVISION	<b>PhD</b> <ol style="list-style-type: none"><li>1. Felix Kalker (joint w. E. Sertöz) Leiden 2025 –</li><li>2. Beatrice Ostorero Vinci (joint w. S. Vigni) Genova / Leiden 2024 –</li><li>3. Mateo Crabit Nicolau (joint w. P. Charollois) Paris / Leiden 2024 –</li><li>4. Paolo Bordignon Leiden 2023 –</li><li>5. Antigona Pajaziti (joint w. A. Perucca) Luxemburg / Leiden 2023 –</li><li>6. Alex Braat (joint w. P. Stevenhagen) Leiden 2022 –</li><li>7. Håvard Damm-Johnsen (joint w. J. Newton) Oxford 2020 – 2024 <i>Diagonal restrictions of Hilbert modular forms</i></li><li>8. Mike Daas Leiden 2020 – 2024 <i>CM values of <math>p</math>-adic theta functions</i></li></ol> <b>Master</b> <ol style="list-style-type: none"><li>1. Rafaël Houkes (co-supervisor: Peter Bruin) current <i>Stark units and SIC-POVM's</i></li><li>2. Shenqi Fan (main supervisor: Lennart Meier) current <i>Equivariant elliptic genera</i></li><li>3. Bart van Kootwijk Leiden 2025 <i>Rank heuristics for Diophantus' family of elliptic curves</i></li><li>4. Jorre The Leiden 2025 <i>Gauss composition and fppf cohomology</i></li><li>5. Felix Kalker Leiden 2025 <i>The Knopp cocycle and cycle integrals of the <math>j</math>-function</i></li></ol>	

6. Emre Karayalçın	Leiden	2025
<i>Torsion in the homology of Bianchi groups and Galois representations</i>		
7. Maarten Stremmer	Leiden	2024
<i>Smooth differences of singular moduli</i>		
8. Mateo Crabit Nicolau	Paris	2024
<i>Holomorphic projections and Shimura curves</i>		
9. Michelle Jacobs	Leiden	2024
<i>Jacobi uniformisation over the <math>p</math>-adic numbers</i>		
10. David van der Vorm	Leiden	2024
<i>Torsion points on elliptic curves over <math>\mathbf{Q}</math></i>		
11. Niels Ketelaars	Leiden	2023
<i>An effective version of Iwasawa's theorem</i>		
12. Sam Van Buuren	Leiden	2022
<i>Spectra of supersingular isogeny graphs</i>		
13. Giacomo Santato (ALGANT)	Leiden	2021
<i>Zeros of <math>p</math>-adic <math>L</math>-functions: the Ellenberg–Jain–Venkatesh conjecture</i>		
14. Giuditta Bellosi (ALGANT)	Leiden	2021
<i>From Pell's equation to Gross–Stark units</i>		
15. Emiel Haakma	Leiden	2021
<i>Heegner points and the Shimura correspondence</i>		
16. Jesse Freeman (Part C, Williams–Exeter Programme)	Oxford	2014
<i><math>L</math>-functions and modular symbols</i>		

### Bachelor

1. Sibrand Op de Beek		current
<i>Torsion in the homology of <math>\mathrm{SL}_3(\mathbf{Z})</math></i>		
2. Anne van der Bijl		current
<i>Finite index subgroups of <math>\mathrm{SL}_n(\mathbf{Z})</math></i>		
3. Rik van der Linde		current
<i>Congruentieklassen van Apolloniaanse netten</i>		
4. Mozes Marcus	Leiden	2025
<i>De Artin–Hasse exponentiële functie</i>		
5. Sjors Verduin (joint w. E. Studnia)	Leiden	2025
<i>Perfectoïde lichamen</i>		
6. Thomas Chen	Leiden	2021
<i>The Leech lattice: Sphere packings and the Conway groups</i>		
7. Kevin Watmough (NSERC)	McGill	2017
<i><math>p</math>-Adic torsors and statistics of the Hilbert symbol</i>		
8. David Marcil (NSERC)	McGill	2017
<i>Elkies' models for towers of modular curves</i>		
9. Isaac Loh (Williams–Exeter Programme)	Oxford	2014
<i>Pell-type equations and Mordell equations</i>		
10. Christopher Huffaker (Williams–Exeter Programme)	Oxford	2014
<i>Fermat's last theorem for regular primes</i>		
11. Jesse Freeman (Williams–Exeter Programme)	Oxford	2013
<i>Class field theory of <math>\mathbf{Q}</math></i>		
12. Christopher Higgins (Williams–Exeter Programme)	Oxford	2012
<i>The friendship theorem and extensions</i>		

13. Zane Martin (Part B, Williams–Exeter Programme) Oxford 2012  
*Dirichlet’s theorem on primes in arithmetic progressions*

**Pre-university**

Lower Sixth students at Magdalen College School (Oxford), Waynflete Studies  
. Tom Daggitt: *Mathematics using origami* 2014  
. Stephen Jones: *The properties of perfect numbers* (Best essay prize) 2014

INVITED TALKS	Dynamics, Equations and Applications (DEA), Kraków 28 June – 2 July 2027 Curves, Abelian VARIeties and RELATED Topics (CAVARET), Barcelona 13–17 July 2026 Mini-course: $p$ -adic aspects of the Kudla program, CIRM Luminy 8–19 June 2026 The Eisenstein ideal and Galois representations, Simons Foundation, New York 18–22 May 2026 Arithmetic Study Group, Durham 20 January 2026 Pure Colloquium, Durham 19 January 2026 Stark-SIC Seminar, Virtual 15 December 2025 Rational points symposium, Leiden 12 December 2025 Automorphic forms seminar, Kraków 7 November 2025 International Workshop on Automorphic Forms, SwissMAP 1–5 September 2025 Nesin Matematik Köyü course lecturer, Şirince 4–10 August 2025 Modular forms in Bielefeld, Bielefeld 23–26 June 2025 Rencontres Arithmétiques de Caen 18–20 June 2025 Seminar on Arithmetic and Algebraic Geometry, München 22 January 2025 Arithmetic and $p$ -adic geometry in Chile, Santiago 2–14 December 2024 Swiss Number Theory Days, Brig 11–12 October 2024 Recent progress on Hilbert’s 12th problem, ICMS Edinburgh 24–29 June 2024 Simons Symposium on Periods and L-values of Motives, Schloss Elmau 9–15 June 2024 Arithmetic theta series and $p$ -adic modular forms, Cetraro 3–7 June 2024 Periods in Physics, Number Theory and Algebraic Geometry, Bonn 22–26 March 2024 Arithmetic and Algebraic Geometry Seminar, Strasbourg 21 March 2024 Algebraic and Arithmetic Geometry Seminar, Bielefeld 13 February 2024 Rational points symposium, Leiden 23 January 2024 Eisenstein cocycles and their applications, UCL 18–20 December 2023 ALGANT Student Seminar, Milan 28 November 2023 Arithmetic Geometry Seminar, Milan 27 November 2023 Rational points on modular curves, ICTS Bangalore 11–22 September 2023 Y-RANT 2023, Cambridge 6–8 September 2023 Department Colloquium, Tor Vergata, Rome 20 July 2023 Workshop on Chabauty–Kim, Montserrat 28–30 June 2023 Number Theory Seminar, Gothenburg 7 June 2023 Edixhoven memorial conference, Leiden 30 May – 2 June 2023 Mini-course CM theory, Luminy 8–12 May 2023 Mathematics Colloquium, Darmstadt 3 May 2023 Colloque des sciences mathématiques, Montréal 11 November 2022 Modular forms in number theory and beyond, Bielefeld 22–26 August 2022 Mordell 2022 – A centenary of elliptic curves, Cambridge 15–19 August 2022 Mini course “Torsion points”, Baskerville Hall, Wales 8–12 August 2022 Mini course “Rigid cocycles and RM singular moduli”, PCMI Utah 1–5 August 2022 30 <sup>e</sup> Rencontres Arithmétiques, Caen 23–27 May 2022 Workshop Stark’s conjectures, Bristol 21–25 March 2022 Iwasawa theory and $p$ -adic L-functions (II), Zhuhai 9 March 2022 Iwasawa theory and $p$ -adic L-functions (I), Zhuhai 2 March 2022 Fields Institute Seminar, Toronto 28 February 2022 Graduation seminar Enis Kaya, Groningen 30 September 2021 CMS 75th Anniversary Meeting, Ottawa 7–11 June 2021 Number Theory Seminar (III), Seoul National University 26 April 2021 Séminaire Arithmétique et Géométrie Algébrique, Orsay 20 April 2021
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Number Theory Seminar (II), Seoul National University	19 April 2021
Number Theory Seminar (I), Seoul National University	12 April 2021
Algebra Seminar, Brown University	8 March 2021
Algebra, Geometry & Number Theory Seminar, Leiden	1 March 2021
Number Theory Seminar, Warwick University	8 February 2021
AIM Workshop on Arithmetic intersection theory on Shimura varieties	4–8 January 2021
Luxembourg Number Theory Day	14 December 2020
DIAMANT Symposium, Leiden	26–27 November 2020
Representation Theory and Automorphic Forms, Vienna	24 November 2020
Algebra and NT Seminar, University College Dublin	27 October 2020
Connecticut Summer School in Number Theory (CTNT)	14 June 2020
ICERM Workshop on Arithmetic Geometry, Project leader (with N. Dogra)	1–5 June 2020
Number Theory Seminar, MIT	5 May 2020
Number Theory Seminar, Rutgers University	28 April 2020
Algebra/NT Seminar, Rochester	22 April 2020
International Seminar on Automorphic Forms, Darmstadt/ETH Zürich/Cologne	22 April 2020
Basic Notions seminar, IAS Princeton	2 April 2020
Arizona Winter School, Project assistant	7–11 March 2020
Johns Hopkins Number Theory Seminar, Baltimore	20 November 2019
NYU–CUNY–Columbia Number Theory Seminar, New York	14 November 2019
Automorphic $p$ -adic L-functions and regulators, Lille	14–18 October 2019
IAS Members' Seminar, Princeton	2 October 2019
Mini-course, Iwasawa 2019 Conference, Bordeaux	19–22 June 2019
$p$ -Adic modular forms and $p$ -adic L-functions, Lake Como	20–24 May 2019
SGA Seminar, Heidelberg/Darmstadt	26 April 2019
Number Theory Seminar, MPIM Bonn	24 April 2019
Number Theory Seminar, IAS/Princeton University	4 April 2019
Number Theory Seminar, University of Exeter	28 March 2019
London Number Theory Seminar, UCL	13 March 2019
Intercity Number Theory Seminar, University of Groningen	1 March 2019
Heilbronn Seminar, University of Bristol	20 February 2019
Séminaire de Théorie des Nombres à Paris 6/7, IMJ–PRG	4 February 2019
Joint Meeting AMS, Number Theory, Arith. Geom., and Comp., Baltimore	19 January 2019
Joint Meeting AMS, New directions in Complex Multiplication, Baltimore	16 January 2019
Number Theory Seminar, Boston University	3 December 2018
North Meets South Colloquium, University of Oxford	30 November 2018
Number Theory Seminar, University of Cambridge	27 November 2018
Oberseminar Zahlentheorie, University of Cologne	6 November 2018
London Number Theory Seminar, Imperial College	7 August 2018
Chabauty–Kim Workshop, Fondation Des Treilles	23–28 July 2018
Bellairs Workshop on Unitary Shimura Varieties, Barbados	3 May 2018
Number Theory and Algebraic Geometry Seminar, Boston College	19 April 2018
Colloquium, University of Manitoba	6 April 2018
Number Theory Seminar, Université Laval	23 March 2018
Number Theory Seminar, UCLA	5 March 2018
Number Theory Seminar, Caltech	2 March 2018
Montréal–Toronto Workshop on Unitary Shimura Varieties	13–14 January 2018
BAANTAG Conference, UC Berkeley	2 December 2017
Number Theory Seminar, University of Chicago	21 November 2017
Number Theory Seminar, Northwestern University	20 November 2017
Québec–Maine Number Theory Conference, Maine University	14 October 2017
Number Theory Seminar, UPC Barcelona	June 2017
Number Theory Seminar, Harvard University	12 April 2017
Québec–Vermont Number Theory Seminar, McGill University	9 February 2017
Québec–Maine Number Theory Conference, Université Laval	8–9 October 2016
Number Theory Seminar, University of Nijmegen	11 June 2016

Workshop on Serre’s Uniform Boundedness Conjecture, Toronto	12-13 May 2016
PIMS Abelian Varieties Seminar, PIMS Vancouver	4 March 2016
Number Theory Seminar, Simon Frasier University	3 March 2016
Colloquium, Cornell University	12 February 2016
Number Theory Seminar, Cornell University	12 February 2016
CMS Winter Meeting, Montréal	4 December 2015
Number Theory Seminar, Université Laval	13 November 2015
Québec–Vermont Number Theory Seminar, McGill University	22 October 2015
Québec–Maine Number Theory Conference, University of Maine	3-4 October 2015
Number Theory Seminar, Warwick University	9 March 2015
Intercity Number Theory Seminar, Leuven University	30 May 2014
Algebra and Geometry Seminar, Newcastle University	22 November 2012

CONFERENCES

<b>Algorithmic Number Theory Symposium (ANTS XVII)</b> , Groningen	6–10 July 2026
Co-organised, with Hess, Kılıçer, Lange, Müller, Özman, Streng, Top, Trimoska, a conference devoted to computational number theory and its applications.	
<b>Arithmetic cycles, modular forms and L-functions</b> , CRM Montréal	18–22 August 2025
Co-organised, with Castella, Pozzi, Iovita, Dasgupta, Rosso, and Lei, a conference on the theme of $p$ -adic methods in number theory, in honour of Henri Darmon’s 60th birthday.	
<b>Arithmetic, Geometry, Space, and Time</b> , ICMS Edinburgh	25–29 November 2024
Co-organised, with Dogra, Kim, and Kwon, a workshop in honour of Minhyong Kim’s 61st birthday dedicated to reciprocity laws and the nascent field of arithmetic quantum field theory.	
<b>Archimedean and non-archimedean Kudla programmes</b> , Cetraro	3–7 June 2024
Co-organised, with Disegni, Nicole, and Pati, a conference on the theme of the classical and $p$ -adic Kudla programmes, and their many interactions and differences.	
<b>Arithmetic Statistics</b> , CIRM Luminy	15–19 May 2023
Co-organised, with Samuele Anni, Elisa Lorenzo Garcia, and Peter Stevenhagen (Jean Morlet Chair), a conference on the theme of discovering and proving randomness in number theory.	
<b>Density Problems in Arithmetic</b> , CIRM Luminy	3–7 April 2023
Co-organised, with Samuele Anni, and Peter Stevenhagen (Jean Morlet Chair), a workshop on recent progress on density problems in number theory.	
<b>Deformation week</b> , Oxford	16–19 April, 2013
Co-organised, with Emily Cliff and Kristian Strømme, a workshop on deformation theory, funded by the Mathematical Institute in Oxford.	
<b>Rational points on curves</b> , Oxford	24–28 September, 2012
Co-organised, with Alan Lauder, Minhyong Kim and Henri Darmon, a conference financed by the ERC, with a focus on $p$ -adic and computational aspects of rational points on curves.	

VISITING

<b>University of Chicago</b>	Chicago	May – Sep 2015
<b>Max Planck Institute for Mathematics</b>	Bonn	Apr 2019
<b>CRM–Simons Fellowship</b>	Montréal	Oct – Nov 2022
<b>MSRI / Simons–Laufer Institute</b>	Berkeley	Mar – Apr 2023