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**CURRICULUM VITAE**  
**Cristina Palmer-Anghel**

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#### Personal details

*Nationality* Romanian  
*Date of birth* August 1991  
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#### Employment history

Since September 2021	University of Geneva– Post Doc under the supervision of Professor Rinat Kashaev
September 2018–August 2021	University of Oxford– Post Doc under the supervision of Professor András Juhász (ERC grant OXTOP)
2019–2020	College Lecturer at Keble College, Oxford
2015–2018	PhD at Université Paris Diderot– supervised by Professor Christian Blanchet Thesis title: <i>On quantum invariants: homological model for the coloured Jones polynomials and applications of quantum <math>sl(2 1)</math></i> Defended: 29 <sup>th</sup> June 2018

**Preprints** (see <http://www.cristinaanghel.ro/Publications.html> for the updated list)

- [12] [Lawrence-Bigelow representations, bases and duality](#) (w/ M. Palmer) (25 pages)  
<https://arxiv.org/abs/2011.02388> -(Submitted)
- [11]  [\$U\_q\(sl\(2\)\)\$ -quantum invariants unified via intersections of embedded Lagrangians](#)  
<https://arxiv.org/abs/2010.05890> (28 pages) -(Submitted)
- [10] [Coloured Jones and Alexander polynomials as topological intersections of cycles in configuration spaces](#)  
<https://arxiv.org/abs/2002.09390> (47 pages) -(Submitted)

**Publications** (see <http://www.cristinaanghel.ro/Publications.html> for the updated list)

- [9] [A globalisation of Jones and Alexander polynomials constructed from a graded intersection of two Lagrangians in a configuration space](#), (32 pages) <https://arxiv.org/abs/2205.07842>  
**Annales de l'Institut Fourier**- To appear
- [8]  [\$U\_q\(sl\(2\)\)\$ -quantum invariants from an intersection of two Lagrangians in a symmetric power of a surface](#), (47 pages)- DOI: <https://doi.org/10.1090/tran/8962>  
**Transactions of the American Mathematical Society**, Volume 376, Number 10, 7139–7185 (2023)
- [7] [Witten-Reshetikhin-Turaev invariants for 3-manifolds from Lagrangian intersections in configuration spaces](#), (28 pages)- <https://arxiv.org/abs/2104.02049>  
**Quantum Topology**- To appear
- [6] [ADO invariants directly from partial traces of homological representations](#)  
<https://arxiv.org/abs/2007.15616> (18 pages)  
**New York Journal of Mathematics**- To appear
- [5] [A topological model for the coloured Alexander invariants](#)  
<https://doi.org/10.1016/j.topol.2023.108465> (49 pages)  
**Topology and its Applications** Volume 329, 108465 (2023)
- [4] [A topological model for the coloured Jones polynomials](#)  
<https://doi.org/10.1007/s00029-022-00772-4> (50 pages)  
**Selecta Mathematica New Series** 28, 63 (2022)
- [3] [A combinatorial description of the centralizer algebras connected to the Links-Gould Invariant](#) (41 pages)  
**Algebraic & Geometric Topology** 21 (2021) 1553–1593
- [2] [Relative \(pre\)-modular categories from special linear Lie superalgebras](#) (w/ N. Geer, B. Patureau)(47 pages)  
**Journal of Algebra** Volume 586, (2021), Pages 479–525
- [1] [Modified Turaev-Viro Invariants from quantum  \$sl\(2|1\)\$](#)  (w/ N. Geer) (47 pages)  
**Journal of Knot Theory and Its Ramifications** (2020) 29 4 2050018

## Academic history

- 2014–2015 Second year master student at Université Paris Diderot  
Mention “Très bien” (grade 18/20)
- 2013–2015 Researcher in training at the Institute of Mathematics of Bucharest
- 2013–2014 First year master student at the University of Bucharest (average 10/10)
- 2010–2013 Undergraduate student at University of Bucharest (average 10/10)

## Awards and Honors:

- 2020 London Mathematical Society- Early Career Fellowship (Declined)
- 2015–2018 [DIM RDM-IdF PhD fellowship](#)  
“Réseau de Recherche Doctoral en Mathématiques de l’Île de France”
- 2014–2015 [PGSM “Fondation Sciences Mathématiques de Paris”](#) for Master 2
- 2012–2013 Research Fellowship from University of Bucharest
- 2010–2014 Merit scholarship from the University of Bucharest

## Invited talks at international conferences

- ([Upcoming](#)) September 2023, Mapping class groups: pronilpotent and cohomological approaches, Les Diablerets Switzerland
- July 2023, The Tenth Congress of Romanian Mathematicians, Pitesti, Romania
- July 2022 AMS-EMS-SMF Special Session, Grenoble, France
- November 2021, AMS Sectional Meeting at the University of South Alabama, US
- November 2021, Quantum Field Theories and Quantum Topology Beyond Semisimplicity, Banff International Research Station, Canada
- August 2021, Remote Rendezvous for Quantum Topologists, US
- August 2021, Perspectives on quantum link homology theories, Regensburg, Germany
- April 2021, British Mathematical Colloquium (BMC), University of Glasgow, UK
- February 2021, Homological and quantum invariants, CIRM, France
- May 2020, (Canceled) Quantum Topology and Geometry, CIRM-Luminy, France
- June 2019, The Ninth Congress of Romanian Mathematicians, Galati, Romania
- May 2018, Workshop for Young Researchers in Mathematics, Bucharest, Romania

## Invited talks at seminars and Workshops

- ([Upcoming](#)) October 2023, Melbourne Topology Seminar, Melbourne, Australia
- May 2023, Geometry and Topology Seminar seminar, Imperial College London
- November 2022, Journée de topologie et d’algèbre quantique, IMJ-PRG Paris
- October 2022, Topology seminar, Texas State University.
- May 2022, Topology Seminar, University of Zurich, Switzerland
- April 2022, Topology Seminar, University of Geneva, Switzerland
- February 2022, Geometry and Topology Seminar, Michigan State University, US
- December 2021, Séminaire de topologie algébrique, UC Louvain, Belgium
- Decembrie 2021, [K-OS] Knot Online Seminar, Regensburg-Germany, Paris-France
- November 2021, Nantes-Orsay seminar on symplectic/ contact geometry, Paris-Saclay, France
- October 2021, Quantum topology seminar, Indiana University Bloomington, US
- October 2021, Caltech geometry and topology seminar, Caltech, US
- October 2021, CUNY Representation Theory Seminar, New York, US
- July 2021, Knots and Representation Theory Seminar, Moscow, Russia
- May 2021, Algebra and Geometry Seminar, Montpellier, France
- May 2021, Knot Theory Seminar, Warsaw, Poland
- May 2021, Algebra and Geometry Seminar, Caen, France
- February 2021, Topology Seminar, Stanford, US
- November 2020, Topology Seminar, Glasgow, UK
- October 2020, Topology Seminar, Institute of Mathematics IMAR, Bucharest, Romania

- May 2020, Topology Seminar, Institute of Mathematics IMAR, Bucharest, Romania
- March 2020, Moscow-Beijing Topology Seminar
- February 2020, Séminaire de topologie, Laboratoire Paul Painlevé, Lille, France
- January 2020, Séminaire de topologie, Institut Fourier, Grenoble, France
- January 2020, Séminaire de topologie, Université Paris Diderot, France
- May 2019, Topology Seminar, Institute of Mathematics IMAR, Bucharest, Romania
- March 2019, Séminaire de topologie algébrique, UC Louvain, Belgium
- December 2018, Topology Seminar, Durham, UK
- November 2018, Séminaire de Topologie et Géométrie, Geneve, Switzerland
- June 2017, Séminaire de topologie, Dijon, France.

### **Selected talks at International Conferences and Talks at International Research Programs**

- PCMI program “Quantum field theory and manifold invariants”, July 2019, Park City-Utah, US
- Workshop “Loops in Leeds”, July 2019, Leeds, UK
- Workshop on Chekanov-Eliashberg algebra, Renyi Institute, March 2019, Budapest, Hungary
- Workshop “Twisted and Quantum knot invariants”, December 2018, Durham, UK
- ICM 2018 Satellite Conference, July 2018, Salvador, Brazil
- Conférence “TQFT et catégorification”, April 2018, l’Institut d’Études Scientifiques-Cargèse, France
- “Winter Braids VIII”, February 2018, CIRM-Luminy, France
- Research Programme “Homology theories in low dimensional topology”, Isaac Newton Institute, February 2017, Cambridge, UK.

### **Research visits**

- Université de Paris (November 2022)
- Laboratoire Paul Painlevé, Lille (February 2020).
- Paris Diderot University (January 2020)
- Institut Fourier, Grenoble (January 2020)
- Park City Mathematics Institute (July 2019)
- UC Louvain (March 2019)
- University of Geneva (November 2018)
- Institut de Mathématiques de Bourgogne, Dijon (May, November 2017, July 2018)
- Isaac Newton Institute, Cambridge (January-March 2017)

### **Teaching activity**

- **University of Geneva 2022-2023:**
  - Student Seminar on Hyperbolic Geometry
  - Tutorials for the Graduate Course “Introduction to Knot Theory”
  - Tutorials for the Course “Géométrie I”
- **University of Geneva 2021-2022:**
  - Student Seminar on Knot theory
  - Tutorials for the Course “Algèbre I”
  - Tutorials for the Course “Géométrie I”
- **University of Oxford 2020-2021:**
  - Interviews for undergraduate admissions, as a leading interviewer at Keble College, Oxford.
- **University of Oxford 2019-2020:**
  - Revision Classes for the Course “Metric Spaces and Complex Analysis”
  - Tutorials for the Course “Metric Spaces and Complex Analysis”
  - Tutorials for the Course “Introduction to University Mathematics”
  - Tutorials for the Course “Introduction to Complex Numbers”
  - Interviews for undergraduate admissions at Keble College, Oxford.
- **University of Oxford 2018-2019:**
  - Revision Classes for the Part A Course “Metric Spaces and Complex Analysis”
  - Tutorials for the Course “Introduction to University Mathematics”
  - Tutorials for the Course “Introduction to Complex Numbers”

- **University Paris Diderot 2015-2016:**
  - Tutorials for the Course “Algèbre et analyse élémentaire-L1 Physique”

### Results at mathematics competitions for university students:

- (2013) Third Prize, International Mathematics Competition for University Students
- (2012) Third Prize, International Mathematics Competition for University Students
- (2012) Silver medal at SEEMOUS Olympiad for University Students

### Organisation of scientific meetings

- (Co-organiser) Topology Seminar, University of Geneva, 2021-2022
- *Workshop for Young Researchers in Mathematics (11th edition)*, May 19-20 2022, Bucharest, Romania
- *Workshop for Young Researchers in Mathematics (10th edition)*, May 20-21 2021, Bucharest, Romania
- *North meets South Colloquium*, Oxford Mathematical Institute, Trinity Term 2019 and 2020, UK
- *Workshop for Young Researchers in Mathematics (9th edition)*, June 3-4 2019, Bucharest, Romania
- *Groupe de Travail "Invariants géométriques / symplectiques d'entrelacs"*, Paris Diderot University, January-July 2018, France

**Committees:** *Early Career Researchers Committee member*, Oxford University, 2018-2020.

### Dissemination:

- *London Mathematical Society Newsletter*– **Featured Article – January 2023**  
[Quantum Knot Invariants Via the Topology of Configuration Spaces](#)
- *Research Case Study*  
[Quantum invariants via the topology of configuration spaces](#), Oxford University, 2021