Oisín Flynn-Connolly

Curriculum Vitae

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flynncoo

Education

10/2021–10/2024 **PhD**, *Université Sorbonne Paris-Nord, Paris*, Supervised by Grégory Ginot, Included a two-month stay with Fernando Muro in Seville (02/2024-03/2024)

09/2019–06/2020 **M2 "Arithmétique, Analyse, Géométrie"**, *Université Paris-Saclay*, Mention bien, Thesis: "Homotopy theory of the little n-discs operad" supervised by Felix Wierstra and Grégory Ginot

09/2015–06/2019 **B.A. (Honors)**, *Trinity College Dublin*, First class honours, Thesis: "Universal enveloping pre-Lie algebras" supervised by Vladimir Dotsenko

Awards

2021 Marie Skłodowska-Curie Action *Cofund* PhD research fellowship

2019 Trinity College Dublin gold medal for academic performance in final exams.

2017 Trinity Foundation Scholarship ('schols')

2017 First place team, second place individual, Irish Intervarsity Mathematical Competition

2014 & 2015 Represented Ireland at the International Mathematical Olympiad

Publications

2023 Dotsenko, V., Flynn-Connolly, O.: Three Schur functors related to pre-Lie algebras, *Math. Proc. Camb. Phil. Soc.*

Preprints

- Flynn-Connolly, O., Moreno-Fernández, J., Wierstra, F.: A recognition principle for iterated suspensions as coalgebras over the little cubes operad, *submitted*
- Flynn-Connolly, O., Moreno-Fernández, J.: Higher order Massey products for algebras over algebraic operads, *submitted*
- Flynn-Connolly, O.: An obstruction theory for strictly commutative algebras in positive characteristic, ArXiv preprint 2404.16681

In Preparation

- Flynn-Connolly, O.: A higher Hochschild-Konstant-Rosenberg Theorem and the Deligne conjecture
- Flynn-Connolly, O.: Homotopically, E_∞ algebras do not generalise commutative dg-algebras

– Flynn-Connolly, O.: A p-adic de Rham complex

Ongoing Collaborations

– Flynn-Connolly, O., Moreno-Fernández, J., Wierstra, F.: Homotopy operations from the little n-cubes operad

Teaching

Spring 2022 **Calculus II**, *Université Sorbonne Paris Nord*

Spring 2022 **Euclidean and non-Euclidean geometry**, *Université Sorbonne Paris Nord*

Autumn 2018 & Spring 2019 **Maths for STEM: Trinity Access Program**, *Trinity College Dublin*

Invited Research Talks

Oct 2023 *The geometry of iterated suspensions*, seminar of Université Sorbonne Paris Nord

Nov 2023 *p-adic homotopy theory*, seminar of Universidad de Malaga

Nov 2023 *The geometry of iterated suspensions*, seminar of Université de Lille

Jan 2024 *Strictly commutative algebra in positive characteristic*, seminar of Stockholm University

Feb 2024 *Strictly commutative algebra in positive characteristic*, seminar of Seville University

Poster Presentations

July 2023 *Corecognition for iterated suspensions*, Young Topologists Meeting, Lausanne

Sep 2023 *Corecognition for iterated suspensions*, Meeting of the Irish Mathematical Society

Popularization Talks

Apr 2024 *Groebner bases and automated theorem proving*, PhD student seminar of USPN

Nov 2022 *Introduction to infinity-categories*, topology PhD student seminar of USPN

Relevant Work Experience

06/2018–07/2018 **Research Intern**, *Project "Random matrices, genus expansions and the symmetric group"*, Worked with Prof. Neil O'Connell

06/2017–07/2017 **Research Intern**, *Project "The category of quasi-parabolic vector bundles"*, Worked with Prof. Sergey Mozgovoy

2016–2019 **Trainer**, *Olympiad camps*

09/2016–06/2018 **Secretary**, *Dublin University Mathematical Society*

09/2017–06/2018 **Teaching Assistant**, *School of Mathematics, Trinity College Dublin*

09/2020–01/2022 **Tutor for Irish secondary school students**, *Trinity Academy*

Language Skills

English	Mother tongue
French	Intermediate

Programming Skills

Typesetting	LaTeX , HTML (intermediate), CSS (beginner)
Scientific Computation	Python, Sage (intermediate), Haskell, C, C++ (beginner)