# Pedro Núñez | Curriculum Vitae

## **Contact details**

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# Working experience

**Postdoctoral researcher** – *National Taiwan University* Postdoc in the working group of Jungkai Alfred Chen.

**Taipei, Taiwan** *September* 2023 - *Present* 

# Publications and preprints

• Adapted differentials as a qfh-sheaf.

Mathematische Zeitschrift 304, 68 (2023). DOI:10.1007/s00209-023-03330-6.

Preprint: arXiv:2210.07968.

• A note on semiorthogonal decompositions for Fano fibrations.

Geometriae Dedicata 2216, 20 (2022). DOI:10.1007/s10711-022-00680-z.

Preprint: arXiv:2002.10987.

#### Contributed talks

9th European Congress of Mathematics	Seville, Spain
Title: Adapted differentials as a qfh-sheaf.	15 July 2024
Géométrie Algébrique en Liberté XXIX	Orsay, France
Title: Semiorthogonal decompositions on Fano fibrations.	24 May 2022
2nd BYMAT Conference	Madrid, Spain
Title: Derived categories of Fano varieties and Mori fibre spaces.	21 May 2019

## **Invited talks**

NCKU Algebraic Geometry Seminar Title: Indecomposability of derived categories of threefolds on the Noether	Tainan, Taiwan line. 18 April 2024
<b>NCTS Seminar in Algebraic Geometry</b> Title: <i>Indecomposability of derived categories of hyperelliptic manifolds.</i>	<b>Taipei, Taiwan</b> 20 October 2023
Luxembourg algebraic geometry seminar Title: Adapted differentials on Campana orbifolds.	Esch-sur-Alzette, Luxembourg 22 March 2023
NCTS Seminar in Algebraic Geometry (online) Title: Adapted differentials on Campana orbifolds.	<b>Taipei, Taiwan</b> 6 February 2023
Red de Doctorandos en Matemáticas UCM (online) Title: Categorías derivadas y geometría birracional.	<b>Madrid, Spain</b> 22 <i>March</i> 2022

#### **Education**

**PhD in Mathematics** – *University of Freiburg* 

Categorical aspects of Campana orbifolds, supervised by Stefan Kebekus.

Grade: magna cum laude

**Freiburg, Germany** September 2019 - July 2023

Master in Mathematics – University of Bonn
Average: 1.2 (German grading system.)

Bonn, Germany
October 2017 - July 2019

**Bachelor in Mathematics** – Complutense University and LMU Munich (Erasmus) **Madrid, Spain** Average: 8.34 (Spanish grading system.) September 2013 - August 2017

# Teaching experience

**Elementargeometrie** – Assistant **University of Freiburg** Lecturer: Annette Huber-Klawitter. Summer Term 2023 **Riemannsche Flächen** – Assistant\* **University of Freiburg** Lecturer: Stefan Kebekus. Winter Term 2022/2023 **Elementargeometrie** – Assistant **University of Freiburg** Summer Term 2022 Lecturer: Annette Huber-Klawitter. **Algebra und Zahlentheorie** – Assistant **University of Freiburg** Lecturer: Annette Huber-Klawitter. Winter Term 2021/2022 Einführung in die Algebra – Tutor\*\* **University of Bonn** Lecturer: Jan Schröer. Winter Term 2018/2019 Lineare Algebra für Informatik und Lehramt – Tutor **University of Bonn** Lecturer: Thoralf Räsch. Summer Term 2018

# Conferences, workshops and schools attended

9th European Congress of Mathematics	Seville, Spain
Universidad de Sevilla	15 to 19 July 2024
Transcendental aspects of algebraic geometry	Cetraro, Italy
Grand Hotel San Michele	1 to 5 July 2024
2024 TMS Annual Meeting	Taipei, Taiwan
National Chengchi University	22 to 23 January 2024
NCTS-Kyoto Mathematics Symposium	Taipei, Taiwan
NCTS (National Center for Theoretical Sciences)	9 December 2023
Birational Geometry and Algebraic Dynamics	Tokyo, Japan
Graduate School of Mathematical Sciences, University of Tokyo	27 November to 1 December 2023
Algebraic Geometry in East Asia	Seoul, South Korea
KIAS (Korea Institute For Advanced Study)	6 to 10 November 2023
Geometric and Arithmetic Frontiers of Orbifolds II	Strasbourg, France
IRMA (Institut de recherche mathématique avancée)	5 to 9 April 2023
Komplexe Analysis — Differential and Algebraic methods in Käh	ler spaces MFO, Germany
MFO (Mathematisches Forschungsinstitut Oberwolfach)	9 to 14 April 2023
Crash Course Condensed Mathematics	Freiburg, Germany
University of Freiburg	13 to 17 March 2023
Abschlusskolloquium of GK "Cohomological Methods in Geome	try" Freiburg, Germany
University of Freiburg	14 to 15 July 2022
Birational Geometry conference	Lausanne, Switzerland

<sup>\*</sup>The job of an assistant in Germany is to create exercise sheets and coordinate the exercise classes.

\*\*The job of a tutor in Germany is to grade homework and discuss its solutions in an exercise class.

EPFL (École Polytechnique Fédérale de Lausanne) 13 to 17 June 2022 Géométrie Algébrique en Liberté XXIX Orsay, France Laboratoire de Mathématiques d'Orsay 23 to 27 May 2022 Workshop Higher Algebra Darmstadt, Germany Technical University of Darmstadt 16 to 18 March 2022 New Techniques in Resolution of Singularities (online participant) MFO, Germany MFO (Mathematisches Forschungsinstitut Oberwolfach) 24 to 30 October 2021 Workshop on K-theory, algebraic cycles and motivic homotopy theory Cambridge, UK Isaac Newton Institute for Mathematical Sciences 13 to 17 January 2020 o-Minimal Structures in Algebraic Geometry Summer School Freiburg, Germany **University of Freiburg** 9 to 13 September 2019 Moduli and Stability conditions Summer School Hannover, Germany University of Hannover 29 July to 2 August 2019 2nd BYMAT Conference Madrid, Spain ICMAT (Instituto de Ciencias Matemáticas) 20 to 24 May 2019 **Geometry Summer School** Utrecht, Netherlands **Utrecht University** 14 to 25 August 2017 **Partial Differential Equations Summer School** Lisbon, Portugal Fundação Calouste Gulbenkian 4 to 8 July 2016 **Dynamical Systems Summer School** Lisbon, Portugal Fundação Calouste Gulbenkian 6 to 10 July 2015 Algebraic Geometry Summer School Lisbon, Portugal

# Scholarships and funding

Fundação Calouste Gulbenkian

Geometric and Arithmetic Frontiers of Orbifolds II Strasbourg, France Funded by IRMA to attend their workshop. *June* 2023 Oberwolfach Leibniz Graduate Students (OWLG) Oberwolfach, Germany Funded by MFO to attend the Komplexe Analysis workshop at Oberwolfach. April 2023 2nd BYMAT Conference Madrid, Spain Funded by ICMAT to attend their conference. May 2019 **Geometry Summer School** Utrecht, Netherlands Funded by Utrecht University to attend their summer school. August 2017 Erasmus Scholarship Munich, Germany Course 2016/2017 Studied at the LMU as an Erasmus exchange student. **Dynamical Systems Summer School** Lisbon, Portugal Funded by the Gulbenkian Foundation to attend their summer school. July 2015

14 to 18 July 2014

## Languages

**Spanish:** Native speaker **German:** C1 level (Goethe-Zertifikat C1) **English:** C1 level (IELTS with score 8) **Mandarin:** B1 level (HSK3 + HSKK Basic)

### Other interests and activities

World Space Observatory – Ultraviolet

Internship at the WSO-UV space telescope project

**Astronomy** – *International Astronomical Youth Camp* 2014

Observational astronomy and weather modeling with Matlab.

**Programming** – Android application development I, II and III

Courses taken at TEIDE Centros de Formación.

Piano – Escuela de música y danza

Piano, musical language and its theory, harmony and chamber music.

Madrid, Spain

1 to 31 July 2015

Weyer, Austria

20 July to 9 August 2014

Madrid, Spain

2013

Madrid, Spain

2005 to 2012