



I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Matematica Federigo Enriques** dell'Università degli Studi di Milano\_\_

Scientist- in - charge: \_\_Prof. Andreatta Fabrizio\_\_

**Ning Guo**

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	GUO
Name	Ning

### PRESENT OCCUPATION

Appointment	Structure
postdoctoral researcher	Euler International Mathematical Institute, Steklov Institute

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Master	algebraic geometry, number theory, etc.	Université Paris Saclay	2018
PhD	Algebraic Geometry	Université Paris Saclay	2021

### REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
23/Sep/2023	American Mathematical Society	Providence, USA

### FOREIGN LANGUAGES

Languages	level of knowledge
English	C1--C2
Chinese	Native
French	B1--B2
Greek	A1--A2
Russian	B1



## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2011	Outstanding Freshman Award of USTC, Grade 2
2014	A Certificate of Honor of the Hua Loo-Keng Talent Program in Mathematics
2015	Chinese Academy of Sciences Outstanding Freshman Award
2018	Doctoral scholarship of la Fondation Mathematical Jacques Hadamard (FMJH)

## RESEARCH ACTIVITIES

Description of activities	
	Since 2021, I become a postdoctoral researcher in the Euler International Mathematical Institute (Steklov Institute) and work with Ivan Panin. My research interests are group schemes and principal bundles, in particular, the Grothendieck--Serre conjecture. Joint with Ivan Panin, we solved a new case of the Grothendieck--Serre conjecture in the mixed characteristic. My joint work with Fei Liu is about the purity of torsors over coherent schemes, including smooth schemes over valuation rings. My mathematical skills include reductive group schemes and torsors, the Bruhat--Tits theory, and geometry over valuation rings (or nonarchimedean fields).

## PROJECT ACTIVITY

Year	Project
2019--2023	<b>Cohomology and Singularities</b> , European Research Council (ERC), under the supervision of Kęstutis Česnavičius
2021--	<b>The Grothendieck--Serre conjecture in the mixed characteristic case</b> , with Ivan Panin

## CONGRESSES AND SEMINARS

Date	Title	Place
19/10/2023	Seminar on algebra	Institute of Mathematics, Hanoi
30/7/2023	Purity and torsors over Prüfer Bases	University of Science and Technology of China, Heifei
23/2/2023	Seminar on Algebraic Geometry and Ramification	Peking University, Haidian, Beijing
22/2/2023	Purity and torsors	Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing
25/11/2022	Algebraic Geometry Seminar	The National Research University Higher School of Economics (HSE University), Moscow
11/11/2022	Second Conference of the Mathematical Centres of Russia	Moscow State University and Steklov Mathematical Institute of Russian Academy of Sciences, Moscow
21/10/2021	A1-topology, Motives and K-theory	Euler International Mathematical Institute, St. Petersburg
30/9/2021	Algebra, Combination and Number Theory	Peking University, Haidian, Beijing
15/6/2021	Quadratic Forms, Linear Algebraic Groups and Beyond	Online Seminar
31/1/2021	SUSTech Number Theory and Arithmetic	Southern University of Science and



	Geometry Conference	Technology, Shenzhen
8/12/2020	St. Petersburg Algebraic Groups Seminar	Chebyshev Laboratory at St. Petersburg State University, Sankt Peterburg
25/11/2020	Séminaire de Théorie des Nombres Paris-Londres	Orsay, Île-de-France
2/9/2019	Buildings and Affine Grassmannians	CIRM, Campus de Luminy, Marseille
6/5/2019	Séminaire Mathjeunes	University of Science and Technology of China, Hefei

## PUBLICATIONS

Articles in reviews
The Grothendieck – Serre conjecture over valuation rings, <b>Compositio Mathematica</b> (to appear), Cambridge University Press, 2023
The Grothendieck–Serre conjecture over semilocal Dedekind rings, <b>Transformation Groups</b> , Birkhauser Boston, 2022, DOI: 10.1007/s00031-020-09619-8

Preprints
Purity and torsors over Prüfer bases, submitted, 2023, with Fei Liu
Grothendieck–Serre for constant reductive groups over Prüfer bases, submitted, 2023, with Fei Liu
On the Grothendieck–Serre conjecture for projective smooth schemes over a DVR, submitted, 2023, with Ivan Panin

## Teaching experience

9/2014 - 1/2015	Assistant in Partial Differential Equations, University of Science and Technology of China, Hefei, China.
9/2015 - 9/2016	Assistant in Linear Algebra, University of Chinese Academy of Sciences, Beijing, China.
9/2021 - 1/2022	EGAIV: étude locale des schémas et des morphismes de schémas, Saint Petersburg State University, Sankt Peterburg, Russia.
6/2023 - 7/2023	Purity of Brauer groups (application of perfectoids), Peking University, Beijing, China.

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

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Place and date: \_\_\_Saint Petersburg\_\_\_, \_\_\_12/Dec/2023\_\_\_