LEI ZHANG

Freie Universität Berlin, FB Mathematik und Informatik
Arnimallee 3, Zimmer 112A, 14195 Berlin, Deutschland
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MATHEMATICAL INTERESTS

Group Schemes and Gerbes, Tannakian Category, Algebraic Stacks, Fundamental Groups.

EMPLOYMENT

Freie Universität Berlin *Nov. 01. 2012 - Present*
Wissenschaftlicher Mitarbeiter at the department of Mathematics.

Universität Duisburg-Essen *Jul. 17. 2012 - Sep. 30. 2012*
Wissenschaftlicher Mitarbeiter at the department of Mathematics.

EDUCATION

Universität Duisburg-Essen *Oct. 01. 2009 - Jul. 16. 2012*
Ph.D student under the supervision of Prof. Dr. Hélène Esnault.
Thesis title: *The homotopy sequence for fundamental groups.*
Awarded: 16 July 2012.

Capital Normal University *Sep. 2006 - Jun. 2009*
Master Student under the supervision of Prof. Dr. Kezheng Li.
Thesis title: *Left Invariant Differential Operators.*
Degree awarded by College of Mathematical Science in June 2009.

China University of Mining and Technology *Sep. 2002 - Jun. 2006*
Bachelor student in Financial Mathematics.
Degree awarded by College of Science in June 2006.

PREPRINTS AND PUBLICATIONS

(1) *The Homotopy Sequence for Nori's Fundamental Group.*
Journal of Algebra, Vol. 393, pp. 79 - 91, 2013.

(2) *The Homotopy Sequence for the Algebraic Fundamental Group.*
International Mathematics Research Notices, doi: 10.1093/imrn/rnt163, 2013.

(3) *Nori's Fundamental Group over a non-algebraically Closed Field.*
To appear in *Ann. Sc. Norm. Pisa Cl. Sci.*

(4) *Algebraic and Nori Fundamental Gerbes* (with Fabio Tonini).
To appear in *Journal of the Institute of Mathematics of Jussieu.*

(5) *F-divided sheaves trivialized by dominant maps are essentially finite* (with Fabio Tonini).
The latest version is here.

(6) *Essentially Finite Vector Bundles on Normal Pseudo-proper Algebraic Stacks* (with Fabio Tonini).
The latest version is here.

(7) *Essentially Finite Covers and Towers of Torsors* with (M. Antei, I. Biswas, M. Emsalem, F. Tonini)

INVITED SEMINAR TALKS

(1) *The algebraic fundamental group.*
Number Theory Seminar at Capital Normal University, 08/2011.
Invited by Prof. Dr. Kezheng Li and Dr. Zifeng Yang.

(2) *Nori's fundamental group.*
Number Theory Seminar at Capital Normal University, 03/2012.
Invited by Prof. Dr. Kezheng Li and Dr. Zifeng Yang.

(3) *The Homotopy Sequence for Fundamental Groups.*
Arithmetic Geometry Seminar at Regensburg, 30/11/2012.
Invited by Prof. Dr. Uwe Jannsen.

(4) *On the Fundamental Group schemes.*
Sminaire de gomtrie algbrique at IRMAR Universit de Rennes 1, 03/10/2013.
Invited by Prof. Dr. Matthieu Romagny.

(5) *On the Fundamental Group schemes.*
Scuola Normale Superiore di Pisa, 20/11/2013.
Invited by Prof. Dr. Angelo Vistoli.

(6) *Galois Theory for Schemes.*
Séminaire de Thorie des Nombres at Institut de Mathématiques de Bordeaux, 11/04/2014.
Invited by Dr. Jilong Tong.

(7) *Nori's fundamental group with a geometric point.*
Number Theory Seminar at Capital Normal University, 08/10/2014.

(8) *Le groupe fondamental avec un point géométrique.*
Séminaire d'algèbre, topologie et géométrie at Laboratoire J. A. Dieudonné, Université de Nice, 18/12/2014.
Invited by Dr. Macro Antei.

(9) *The Nori fundamental Gerbe.* Number Theory Seminar at Capital Normal University, 30/03/2017.

CONFERENCE TALKS

Deutschen Mathematiker-Vereinigung *Sep.17, 2012 - Sep. 20, 2012*
at Universität des Saarlandes, Saarbrücken.

On the Homotopy Sequence of Nori's Fundamental Group.
(Minisymposia and Sections Sep.17, 2012)

North German Algebraic Geometry Seminar *May 15, 2014 - May 16, 2014*
at Universität Hamburg, Hamburg.

Galois Theory for Schemes.
(May 16, 2014)

Arithmétique des Variétés en Familles – Closing Conference *Nov. 4, 2014 - Nov. 7, 2014*
at Institut de Mathématiques de Bordeaux.

Nori's Fundamental Group with a Geometric Point.
(Nov. 5, 2014)

TEACHING EXPERIENCE

(1) Seminar: *p-adische Zahlen* (in German), Freie Universität Berlin, Sommersemester 2017.

(2) Excersice session for the course *Algebraic Number Theory II*, Freie Universität Berlin, Sommersemester 2017.

(3) Course: *Étale Cohomology*, Freie Universität Berlin, Wintersemester 2016-2017.

(4) Course: *Algebraic groups*, Freie Universität Berlin, Sommersemester 2016.

(5) Seminar: *Analytic Methods in Number Theory*, Freie Universität Berlin, Wintersemester 2015-2016.

(6) Excersice session for the course *Elliptic Curves*, Freie Universität Berlin, Wintersemester 2015-2016.

(7) Seminar: *Quadratic Forms*, Freie Universität Berlin, Sommersemester 2015.

(8) Excersice session for the course *Algebraic Number Theory II*, Freie Universität Berlin, Sommersemester 2015.

(9) Excersice session for the course *Algebraic Number Theory II*, Freie Universität Berlin, Wintersemester 2014-2015.

(10) Student seminar *p-adische Zahlen*, Freie Universität Berlin, Wintersemester 2014-2015.

(11) Teaching assistant of Prof. Dr. Hélène Esnault for the master course *Algebraic Number Theory*, Freie Universität Berlin, Sommersemester 2014.

(12) Teaching assistant of Prof. Dr. Hélène Esnault for the master course *Kommutative Algebra I*, Freie Universität Berlin, Wintersemester 2013-2014.

(13) Teaching assistant of Prof. Dr. Hélène Esnault for the master course *Algebraische Zahlentheorie II*, Freie Universität Berlin, Sommersemester 2013.

(14) *Lern- und Diskussionszentren* (LuDi), Universität Duisburg-Essen, Sommersemester 2012.

(15) Teaching assistant of Prof. Dr. Hélène Esnault and Prof. Dr. Moritz Kerz for the master course *Algebraic Geometry III*, Universität Duisburg-Essen, Sommersemester 2011.

LANGUAGE SKILLS

(1) Chinese (native)

(2) English (fluent)

(3) German (fluent)

(4) French (basic)