

Fei YE

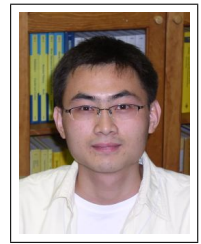
Resumé

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Personal Information

I was born on October 1, 1979, in Nanyang, Henan, P. R. China.

Research Interests

My research interests are mainly in algebraic geometry which include: hyperplane arrangements, topology of algebraic varieties, positivities in algebraic geometry, derived categories of coherent sheaves, algebraic surfaces, moduli spaces, birational algebraic geometry, vector bundles on projective spaces.

Education

May, 2011 **PH.D.**, *University of Illinois at Chicago*, pure mathematics, algebraic geometry.

July, 2010 **PH.D.**, *East China Normal University*, pure mathematics, algebraic geometry.

July, 2002 **B.S.**, *Guangzhou University*, mathematics education and pure mathematics.

Appointments

July, 2011 -
June, 2012 **Postdoc Fellow**, *Emmy Noether Research Institute for Mathematics*.

Papers and preprints

Published or Accepted Papers

1. Diffeomorphic types of complements of nice arrangements in $\mathbb{C}P^l$ (with Stephen S.T. Yau), *Science in China, Series A: Mathematics*, Vol. 52 (12), 2774-2791, 2009.
2. A Note on The Topology of The Complements of Fiber-type Line Arrangements in $\mathbb{C}P^2$ (with Sheng-Li Tan and Stephen S.T. Yau), to appear in *Pacific Journal of Mathematics*, 2010

Papers in Submission or Preprint

1. On lower bounds of slopes of totally ramified triple cover fibrations, joint work with Pan Liu and Jun Lu, preprint, 2006

2. Rigidity of Differential structure for a new class of arrangements in \mathbb{CP}^4 (with Stephen S.T. Yau), 34 pp. in ms. submitted for publication, 2007
4. A Remark on Splitting of Reflexive Sheaves, 4 pp. in ms., 2009

Papers in Preparation

1. Characteristic varieties of fiber-type line arrangements in \mathbb{CP}^2
2. Analytic Proofs of Some Splitting Criteria for Vector Bundles on Projective Spaces

Talks

Presentations

1. Connectedness of Moduli Spaces of Certain Types of Hyperplane Arrangements, in Birational Geometry and Moduli Spaces workshop, MRC 2010, Snowbird, Utah June 16, 2010

Seminar Talks

1. Application of Bogomolov's instability criterion: Reider's theorem on linear system on algebraic surfaces, in Graduate Algebraic Geometry Seminar, October 31 2007
2. An brief introduction to Leray-Serre Spectral sequence, in Algebraic Topology Course Fall 2008
3. The proof of Gesieker's potential stability theorem, in UIC Graduate Algebraic Geometry Seminar, Fall 2008
4. Bend and Break Lemmas Review, in UIC Graduate Algebraic Geometry Seminar, August 31, 2009
5. Existence of Flips and Extensions of the Minimal Model Program, in UIC Graduate Algebraic Geometry Seminar, November 16, 2009
5. Examples of Contractions of Extremal Rays : small contraction, in UIC Graduate Algebraic Geometry Seminar, November 30, 2009
6. Filtrations of Vector Bundles on Smooth Algebraic Curves, in UIC Graduate Algebraic Geometry Seminar, Spring 2010
7. Invariant Geometry - An Introduction, in UIC Graduate Algebraic Geometry Seminar, Spring 2010
8. The Theorem of Cube I, in UIC Graduate Algebraic Geometry Seminar, Fall 2010

Other Academic Activities

Seminar Organized

UIC Graduate Student Algebraic Geometry Seminar, Summer 2009 and Fall 2009,
http://www.math.uic.edu/seminars/schedule_by_topic?code=GAGS

Conferences and Workshops Attended

1. 5-6 October 2007, AMS Fall Central Section Meeting, DePaul University.
2. October 20-21 , 2007 OSU/UM Algebraic Geometry Workshop, University of Michigan, Ann Arbor, <http://www.math.lsa.umich.edu/~rlaz/oldag.html>
3. March 7-8 , 2008 , The Midwest Number Theory Days , University of Illinois at Chicago , <http://www.math.uic.edu/~cojocar/midwest-07.html>
4. April 11-13 , 2008, Birthday conference for Robin Hartshorne, UIC. <http://math.uic.edu/~coskun/hartshorne.html>
5. October 18-19, 2008, UM-OSU-UIC Algebraic Geometry Workshop, University of Michigan, Ann Arbor, <http://www.math.lsa.umich.edu/~rlaz/oldag.html>
6. 23-27 February , 2009, "Multiplier ideals and their applications," led by Professors Robert Lazarsfeld and Mircea Mustata, The Ohio State University, <http://www.mri.osu.edu/special>
7. March 6-8, 2009, 2nd Bluegrass Algebra Conference, University of Kentucky Lexington, http://www.ms.uky.edu/~algebra_uky_09/
8. May 4-8, 2009, Fourier-Mukai functors, regularity on abelian varieties, and Generic Vanishing theorems, University of Michigan, Ann Arbor, http://docs.google.com/Doc?id=dd8c4w3t_4dmxdm2hj
9. June 22-26 , 2009, Topology of Algebraic Varieties A Conference in Honor of the 60th Birthday of Anatoly Libgober, Jaca, Spain, <http://www.math.uic.edu/~jaca2009/>
10. October 16-18 , 2009, A Conference in honor of Anatoly Libgober's 60th Birthday, <http://sites.google.com/site/libgober60/>
11. November 14-15 , 2009 The OSU/UIC/UM Weekend Algebraic Geometry Workshop, University of Michigan, Ann Arbor, http://www.math.lsa.umich.edu/~mmustata/OSU_UIC_UMworkshop.html
12. March 13-14 , 2010 UM/UIC/OSU Weekend Algebraic Geometry Workshop, The Ohio State University, Columbus, <http://www.math.ohio-state.edu/node/46342>
13. April 23-25, 2010, Midwest Algebra, Geometry and their Interactions Conference - MAGIC'10, University of Notre Dame, Notre Dame <http://www.nd.edu/~magic/MAGIC'10/>
14. May 10-14, 2010, Algebraic Geometry On Varieties And Manifolds, Fudan University, Shanghai, China <http://homepage.fudan.edu.cn/~mchen/2010Workshop/main.html>
15. June 1-11 , 2010, School on birational geometry and moduli spaces, University of Utah, Salt Lake City, Utah <http://www.math.utah.edu/vigre/minicourses/birational/index.html>
16. June 12-18 , 2010, Birational Geometry and Moduli Spaces, MRC 2010, Snowbird, Utah <http://sites.google.com/site/birational/>

17. October 2-3, 2010, Ohio State-Michigan-UIC Workshop in Algebraic Geometry, University of Illinois at Chicago, Chicago <https://sites.google.com/site/fall2010osumichuic/>
18. October 21-24, 2010, Compact Moduli and Vector Bundles, University of Georgia, Athens, Georgia www.math.uga.edu/moduli2010/
19. January 6-9, 2011, AMS 2011 Joint Mathematics Meetings, New Orleans, Louisiana http://jointmathematicsmeetings.org/meetings/national/jmm/2125_intro.html
20. April 2-3, 2011, Workshop in Algebraic Geometry: on the occasion of the retirement of Igor Dolgachev, University of Michigan, Ann Arbor, Michigan <http://www.math.lsa.umich.edu/~mmustata/igorfest.html>

Teaching

I have been a teaching assistant of MSCS at UIC since Fall 2006. I am currently (Fall 2010) teaching math 118 mathematical reasoning

I had been teaching the following courses:

Math 210 calculus III in Summer 2010 as an instructor

Math 181 Calculus II, Spring 2010

Math 210 Calculus III, Fall 2009

Math 160 Finite Mathematics for Business, Summer 2009

Math 180 Calculus I, Fall 2008 and Spring 2009

Math 121 Precalculus, Spring 2007 and Spring 2008

Math 090 immediate algebra, Fall 2006, Fall 2007 and Summer 2008

References

Stephen S.T. Yau, University of Illinois at Chicago, yau@uic.edu

Lawrence Ein, University of Illinois at Chicago, ein@uic.edu

Mihnea Popa, University of Illinois at Chicago, mpopa@math.uic.edu

Alina Marian, University of Illinois at Chicago, alina@math.uic.edu

Evangelos Kobotis (teaching), University of Illinois at Chicago, evangelos@math.uic.edu