Applying for Academic Jobs

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Have a plan!

Deadlines in North America:

- ▶ PhD programs and fellowships Dec/Jan (or earlier)
- Postdocs/tenure track jobs Sep/Oct/Nov

You need to start planning at least two months before the deadline.

Your application packet

- CV and publication list
- Research statement
- Teaching statement
- Diversity statement
- ▶ ≥ 3 recommendation letters
- Teaching letter

CV and publication list

- For a publication list, you need publications (or at least preprints)
- Typical CV categories: name and contact info, education, employment, awards, research interests, publications, talks, other activities, references
- Only include relevant information

Research statement

My research finds itself at the intersection of algebraic geometry and combinatorics. I am primarily interested in studying the geometry of T-varieties, that is, normal algebraic varieties with an effective action by a torus T. Consider the special case of a T-variety X where the acting torus T has dimension equal to that of X. Then X is in fact a toric variety, which have been studied extensively in recent years. One very appealing aspect of toric varieties

My research lies within the field of *algebraic geometry* — the study of solution sets of systems of polynomial equations. Such sets, called *varieties*, appear in connection to numerous fields including information theory, cryptography, phylogenetics and biology, computer vision, and theoretical physics. Algebraic geometry occupies a central role in pure mathematics, and many recent developments have had far-reaching consequences. The overarching goal of my program of research is to *forge new insights into algebraic*

Research statement

- Show it to your advisor and friends
- Brevity is your friend
- Why is your research important?
- ▶ Why are you the best person for your project?

Teaching and diversity statements

- Do you have experience teaching?
- Will you be able to adapt to different courses/audiences?
- Do you have a thoughtful approach to teaching?
- ► How will you simultaneously reach bright students and underprepared students?

Put yourself in situations that help you better answer these questions!

Starting point for diversity: Federico Ardila's *Todos Cuentan*



Letters

Dear Professor Lefschetz:

This is to recommend Mr. John F. Nash, Jr. who has applied for entrance to the graduate college at Princeton.

Mr. Nash is nineteen years old and is graduating from Carnegie Tech in June. He is a mathematical genius.

Yours sincerely,

Richard & P uffin

Richard J. Duffin

- ► Ask at least 1 month prior to deadline
- Provide all your application materials
- Recommender needs basis for evaluation
- ▶ Recommender is doing you a favor!!!

Where to find jobs



- Math society sites: mathjobs.org, mathhire.org, eims.ams.org/jobs/, www.mathclassifieds.org
- Country specific sites: www.maths.lth.se/nordic/, www.jobs.ac.uk/categories/maths
- Area-specific networks: EAGER, SIAGA, commalg.org

Stategies for success

- Look at successful application packets
- Apply widely, but concentrate effort where it is worthwhile
- ▶ Letters and connections matter a lot

My story







- 2005: DAAD fellowship for graduate study in Germany Rejected for more prestigious Fulbright.
 Rejected for Telekom fellowship.
- ▶ 2010: Postdoc at Max Planck Institute for Math
- 2011: Postdoc at UC Berkeley Applied for over 30 postdocs.
 Only offers from MPI and Berkeley.
- 2014: Assistant Professor at SFU Applied for over 100 tenure track jobs. Only three offers.

Thanks for listening!