

Tips for PhD applications (focus on Algebraic Geometry)

Many thanks to Marta Pieropan for putting together the original list!

In general, to apply for a PhD position you will be asked for a CV, a motivation letter, transcripts of your bachelor and master grades, and names of people who write your letters of references. You may need from 2 to 4 letters depending on where you apply. Usually your references would be from professors you have been working with closely, such as your master thesis advisor, bachelor thesis advisor, supervisor of some other project you worked on, teacher of one of your courses, tutor, etc. You have to ask these people whether they can write a letter for you, and you want to ask the people you think are going to write a good recommendation.

Where the advertisements are, when the deadlines are, and how to apply varies from country to country.

Here is a general website where you can find PhD positions in math:

<https://www.acad.jobs/Jobs/Mathematics-Statistics/All-Countries/All-Categories/Junior/Academic>

For positions in the US you find some information here

<https://www.phdportal.com/countries/82/united-states.html>

Deadlines are in early December, see

<https://collegedunia.com/usa/article/phd-in-usa-top-colleges-deadlines-eligibility-fees-scholarships-jobs>

Check the graduate programs on each university website.

To receive advertisements for PhD positions in Algebraic Geometry or Number theory in Europe you should subscribe to the following mailing lists:

The European algebraic geometry mailing list:

<https://www.listserv.dfn.de/sympa/info/eager-gen>

The UK algebraic geometry mailing list:

<http://listserv.csv.warwick.ac.uk/mailman/listinfo/cowalggeom>

The number theory mailing list: <https://listserv.nodak.edu/cgi-bin/wa.exe?A0=NMBRTHRY>

Not all positions are advertised through these mailing lists.

Some doctoral schools:

Berlin Mathematical School <https://www.math-berlin.de/about-bms>

London Graduate School in Geometry and Number Theory <http://www.lsgnt-cdt.ac.uk/>
(possibly discontinued)

ISTA Graduate School <https://phd.pages.ist.ac.at/phd-program-overview/>

Glasgow Graduate School in Algebraic Structures <https://www.glams.org/home>

Some useful advice from [Ravi Vakil](https://math.stanford.edu/~vakil/potentialstudents.html): <https://math.stanford.edu/~vakil/potentialstudents.html>

