

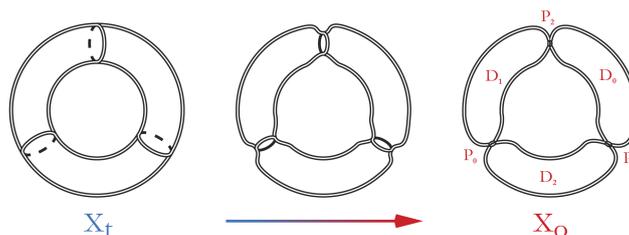
The Institute of Mathematics of the Polish Academy of Sciences

announces an open call for a doctoral scholarship
in the National Science Centre project

Deformations and Degenerations of Algebraic Varieties

(SONATA 13, PI: Piotr Achinger)

The stipend is 3500 PLN monthly for a period of 24 months. In addition, the grant provides financial support for travel. The recipient is expected to conduct research towards writing a PhD thesis related to the project's topics.



The project is devoted to the study of families of algebraic varieties, with applications to both classical complex algebraic geometry and arithmetic geometry in mind. For instance, the equation

$$t \cdot (x_0^3 + x_1^3 + x_2^3) = x_0 x_1 x_2,$$

where the variable t is treated as a parameter, defines a family of curves X_t in the projective plane. For a general value of t , X_t is an elliptic curve (topologically: a torus), while e.g. the curve X_0 is 'degenerate' as shown in the picture. One of the project's goals is to study the topology of such degenerations, also in higher dimensions and over the ring of p -adic numbers.

More information about the project: <http://achinger.impan.pl/sonata.html>.

Requirements. Upon joining the project, the candidate is required to be a PhD student at a Polish university or institute. We will require basic familiarity with algebraic geometry. Familiarity with deformation theory or logarithmic geometry will be welcome but not required.

How to apply. Send an application containing the following documents:

- CV (containing achievements, prizes, awards, and contact information),
- a research plan or a description of scientific interests,
- consent for the processing of personal data,
- a Transcript of Records,
- any other attachments which may help the candidate

before the deadline of

October 3, 2018

to pachinger@impan.pl. Selected candidates may be invited for an interview on Oct 5 or Oct 8. In case of foreign candidates, the interview may be conducted over Skype. The results will be announced no later than Oct 12, 2018.

Regulations. The stipend will be awarded according to the *Conditions for awarding stipends* of the National Science Centre dated Oct 27, 2016¹.

Questions? Contact the PI at pachinger@impan.pl.

¹http://www.ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2016/uchwala96_2016-zal1.pdf (in Polish)