

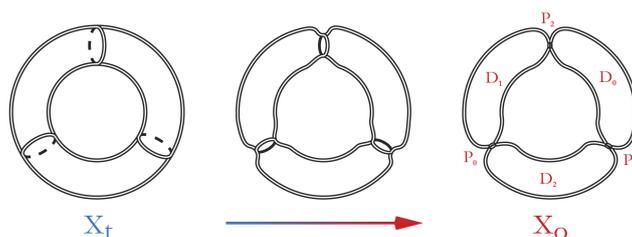
The Institute of Mathematics of the Polish Academy of Sciences

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

Deformations and Degenerations of Algebraic Varieties

(SONATA 13, PI: Piotr Achinger)

The stipend is 1000 PLN monthly for a period of 18 months (academic year 2018/19 and 2019/20). In addition, the grant provides financial support for travel. The recipient is expected to complete a Master's 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 (in Fall 2018), the candidate is supposed to be a 1st or 2nd year student of the second level (Master's) program in mathematics at a Polish university. A good knowledge of algebra and topology is required, and some familiarity with basic algebraic geometry is recommended.

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

- CV (containing achievements, prizes, awards, and contact information),
- 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

June 15, 2018

to pachinger@impan.pl. Selected candidates may be invited for an interview during the period June 18–21. The results will be announced no later than July 15, 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)