

The Fanosearch Project

Tom Coates

Classifying Fano Varieties

Fano varieties are ‘atomic pieces’ of mathematical shapes.

1 in dimension 1; 10 in dimension 2; 105 in dimension 3.

The goal is to find and classify Fano varieties in dimensions 4 and 5: building a ‘periodic table’ of shapes.

The Team

- Tom Coates, Alessio Corti, Al Kasprzyk (Imperial College London)
 - Vasily Golyshev (IITP, Moscow)
 - Sergei Galkin (IPMU, Tokyo)
 - the MAGMA group (University of Sydney)
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Tools: Meatspace

- face-to-face meetings
- pencil-and-paper calculations
- writing code, analyzing data
- arguing at the blackboard

Most of the work happens here.

Tools: Like Water To Fish

- Email
 - Phone
 - Skype
 - DropBox
 - www.arXiv.org
 - IM
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Tools: Web 2.0

- collaborative blog: <http://coates.ma.ic.ac.uk/fanosearch>
 - sharing data and ideas
 - Twitter feed: @fanosearch
 - results from/progress of computer calculations
 - public outreach
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More About The Project

- *Science* article: <http://bit.ly/bloomsco1>
- press release: <http://bit.ly/bloomsco2>

Slices of Some 3-Dimensional Fano Varieties

