The Sarkisov program

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Room 6635 South Hall

Note Unusual Time

Abstract: The conjectural output of the minimal model program is either a minimal model or a Mori fibre space. Unfortunately the output in neither case is unique.

Kawamata has recently shown that any two minimal models are connected by a sequence of flops. The Sarkisov program aims to factorise any birational map between two Mori fibre spaces into a sequence of elementary links. In the case of surfaces, an elementary transformation of $P^1$-bundles is an example of such a link, and the Sarkisov program provides a natural framework to prove that the birational automorphism group of $P^2$ is generated by a Cremona transformation and $\text{PGL}(3)$.

We describe recent work with Christopher Hacon where we extend the Sarkisov program to all dimensions.

Information about future meetings of this seminar can be found at

http://www.math.ucsb.edu/~drm/GTPseminar/