

New Perspectives on Hyperkähler Manifolds - A Celebration of Dimitri Markushevich's (60+2)nd Birthday

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Type: In-person Talk

## Irrational Gushel Mukai threefolds

*Tuesday, 14 June 2022 16:00 (1 hour)*

We construct an explicit complex smooth Fano threefold with Picard number 1, index 1, and degree 10 (a Gushel-Mukai threefold) and prove that it is not rational by showing that its intermediate Jacobian has a faithful  $\mathrm{PSL}(2, F_{11})$  action. The construction is based on a very special double EPW sextic. This is joint work with O. Debarre.

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