# Real loci of rational Fano threefolds

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**Abstract**

From the classification of real rational surfaces worked out by Comessatti at the beginning of the 20th century we get the following striking characterization of real rational surfaces: a geometrically rational real surface is rational if and only if its real locus is non-empty and connected. The analogous assertion fails in higher dimension.
With Andrea Fanelli, we explore real loci of geometrically rational Fano threefolds in relation to their rationality and find an unexpected criterion.

https://arxiv.org/abs/2507.04012

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