

Regularity problems in the Calculus of Variations

- Date: 25.11.2024
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- Address: Sokolovská 83, Praha
- Room: K3
- Speaker: Cristiana De Filippis, University of Parma, European Mathematics Award (EMS prize) 2024

Abstract: Regularity theory and the Calculus of Variations are unavoidably linked to each other, as in fact, regularity techniques essentially serve to show weak or distributional solutions are in fact classical solutions. Therefore, regularity ensures solvability. This is a topic that has been tremendously developed over the last 100 years and I will try to give an overview starting from very classical results, passing through the fundamental contributions of De Giorgi and Nash, eventually approaching to some of the most recent developments involving nonuniformly elliptic problems.