

Seminar of the Work Group
Nonlinear Partial Differential Equations
SS 2021

Speaker: JProf. Dr. Franz Gmeineder
June 18, 2021, 14:00 - 15:30
Zoom Link: <https://kit-lecture.zoom.us/j/5732649920>
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\mathcal{A} -quasiconvexity, function spaces and regularity

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Abstract

By Morrey's foundational work, quasiconvexity displays a key notion in the vectorial Calculus of Variations. A suitable generalisation that keeps track of more elaborate differential conditions is given by Fonseca & Müller's \mathcal{A} -quasiconvexity. With the topic having faced numerous contributions as to lower semicontinuity, in this talk I give an overview of recent results for such problems with focus on the underlying function spaces and the (partial) regularity of minima.

The talk is partially based on joint work with Sergio Conti (Bonn), Lars Diening (Bielefeld), Bogdan Raita (Leipzig) and Jean Van Schaftingen (Louvain).