

# Exploiting convex duality in the calculus of variations

Wednesday, July 6, 2022 3:00 PM (30 minutes)

I will recall the classical theory of convex duality and explain how this can be used to obtain regularity statements in the study of minimisers of the problem

$\min_{u \in W^{1,p}(\Omega)} \int_{\Omega} F(x, Du) dx$ . In particular, I will comment on recent results obtained in collaboration with Cristian de Filippis (Pavia) concerning the growth condition as well as concerning the controlled duality (p,q)-growth condition.

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