

April 12,2021

**Monday's Nonstandard Seminar 28**

**15:00**

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Title: **Regularity results for bounded minimizers**

Abstract: I will present some higher differentiability results for local bounded minimizers of non autonomous integral functionals of the form

$$\mathcal{F}(v, \Omega) = \int_{\Omega} f(x, Dv(x)) \, dx,$$

both in the case of unconstrained and constrained problem (see [?] and [?] respectively). In both cases the energy density satisfies  $p$ -growth conditions with respect to the gradient variable and Sobolev regularity with respect to the spatial variable.

REFERENCES

- [1] R. Giova, A. Passarelli di Napoli, Regularity results for a priori bounded minimizers of non autonomous functionals with discontinuous coefficients, *Adv. Calc. Var.* **12**(1) (2019) 85–110
- [2] M. Caselli, A. Gentile, R. Giova, Regularity results for solutions to obstacle problems with Sobolev coefficients, *J. Differential Equations* **269** (2020) 8308–8330