Speaker: HUSSIEN ABUGIRDA

Title: Existence of $1D$ Vectorial Absolute Minimisers in L^∞ under Minimal Assumptions

Abstract: *In this talk I will summarise some recent progress regarding the existence of vectorial Absolute Minimisers in L^∞. To this end, the existence of vectorial Absolute Minimisers in the sense of Aronsson to the supremal functional $E_\infty(u,\Omega') = \|\mathscr{L}(\cdot,u,u')\|_{L^\infty(\Omega')}$, $\Omega' \Subset \Omega \subseteq \mathbb{R}$, applied to $W^{1,\infty}$ maps $u : \Omega \subseteq \mathbb{R} \longrightarrow \mathbb{R}^N$ with given boundary values has been proved. The assumptions on $\mathscr{L}$ are minimal, improving earlier existence results previously established by Barron-Jensen-Wang and by Katzourakis. The presentation is based on a joint paper with N. Katzourakis (Proc. of the AMS, to appear).*