

SPEAKER:

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TITLE:

Existence and non-existence of minimizers for Poincaré–Sobolev inequalities

ABSTRACT:

In this talk I discuss the existence and non-existence of minimizers for a type of (critical) Poincaré–Sobolev inequalities. We show that minimizers do exist for smooth domains in \mathbb{R}^d , and also for some polyhedral domains. On the other hand, we show the non-existence of minimizers in the rectangular isosceles triangle in \mathbb{R}^2 . This is joint work with Cristobal Vallejos (PUC, Chile) and Hanne Van Den Bosch (U. de Chile).