

**SEMINAR**

**CAPDE**

**EXPOSITOR**

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**Title**

Gagliardo-Nirenberg-Sobolev inequalities in domains

**Abstract:** Our objective is to estimate constants for a type of Gagliardo-Nirenberg-Sobolev inequalities in domains in euclidean space. We obtain a rough bound valid for bounded convex domains in dimension 3 and higher. When the domain is a cube, we obtain an improved bound in any dimension. In one dimension, the sharp constant is simply related to the sharp constant of the inequality on the real line and I will comment on the open question whether this holds true in higher dimensions.

Joint work with Rafael Benguria and Cristobal Vallejos.

**April 16, 2018, 4.10. pm**  
**Sala de Seminarios Felipe Álvarez Daziano 5to piso del DIM**