

## Calderón -Zygmund Analysis Seminar

Monday, November 16th, 3:45 pm

### The Bernstein problem for equations of minimal surface type

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**Abstract.** The Bernstein problem asks whether entire minimal graphs in dimension  $n + 1$  are necessarily hyperplanes. This problem was solved in combined works of Bernstein, Fleming, De Giorgi, Almgren, and Simons ("yes" if  $n < 8$ ), and Bombieri-De Giorgi-Giusti ("no" otherwise). We will discuss the analogue of this problem for minimizers of general parametric elliptic functionals. In particular, we will discuss new examples of nonlinear entire graphical minimizers in dimension  $n = 6$ , and recent joint work with Y. Yang towards constructing such examples in the lowest possible dimension  $n = 4$ .