1135-00-34 **André Neves***, University of Chicago, Chicago, IL 60637. *Wow, so many minimal surfaces.* Preliminary report.

Minimal surfaces are ubiquitous in Geometry but they are quite hard to find. For instance, Yau in 1982 conjectured that any 3-manifold admits infinitely many closed minimal surfaces but the best one knows is the existence of at least two.

In a different direction, Gromov conjectured a Weyl Law for the volume spectrum that was proven last year by Liokumovich, Marques, and myself.

I will cover a bit the history of the problem and then talk about recent work with Irie, Marques, and myself: we combined Gromov.s Weyl Law with the Min-max theory Marques and I have been developing over the last years to prove that, for generic metrics, not only there are infinitely many minimal hypersurfaces but they are also dense. (Received November 2, 2017)