Properly embedded minimal annuli in $H^2 \times R$.

Francisco Martín [1]
[1] Universidad de Granada

In this talk we describe the moduli space of properly Alexandrov-embedded, minimal annuli in $H^2 \times R$ with horizontal ends. We say that the ends are horizontal when they are graphs of $\mathcal{C}^{2,\alpha}$ functions over $\partial_\infty H^2$. Contrary to expectation, we show that one can not fully prescribe the two boundary curves at infinity, but rather, one can prescribe the bottom curve, but the top curve only up to a translation and a tilt, along with the position of the neck and the vertical flux of the annulus. We also prove general existence theorems for minimal annuli with discrete groups of symmetries. This is a joint work with Leonor Ferrer, Rafe Mazzeo and Magdalena Rodríguez.