1147-30-195 **Oleg Ivrii***, 1200 E California Blvd, Pasadena, CA 91125. *Entropy of universal covering maps.*

Let P be a finite set of points in the unit disk not containing the origin and $\mathcal{U}_P : \mathbb{D} \to \mathbb{D} \setminus P$ be the universal covering map normalized so that $\mathcal{U}_P(0) = 0$ and $\mathcal{U}'_P(0) = 0$. It is well known that the Lebesgue measure on the unit circle is invariant under $\mathcal{U}_P$. In this talk, I will show that its measure-theoretic entropy is equal to

$$\frac{1}{2\pi} \int_{|z|=1} \log |\mathcal{U}'_P(z)| \, |dz| = \sum_{p \in P} \log \frac{1}{|p|} - \sum_{z \in Z} \log \frac{1}{|z|},$$

where Z is the set of zeros of $\mathcal{U}_P$ other than the origin. I credit the above formula to Pommerenke who proved an equivalent statement in his paper "On Green's functions of Fuchsian groups." (Received January 08, 2019)