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

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

where $Z$ is the set of zeros of $U_P$ 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)