1116-57-1939 **Aldo Cruz-Cota***, aldo.h.cruz.cota@gmail.com. *The Topological Complexity of a Surface.*

Let p be a branched covering of a Riemann surface to the Riemann sphere $\mathbb{P}^1$, with branching set $B \subset \mathbb{P}^1$. We define the *complexity* of p as infinity, if $\mathbb{P}^1 \setminus B$ does not admit a hyperbolic structure, or the product of its degree and the hyperbolic area of $\mathbb{P}^1 \setminus B$, otherwise. The *topological complexity* of a surface S is defined as the infimum of the set of all complexities of branched coverings $M \to \mathbb{P}^1$, where M is a Riemann surface homeomorphic to S. We prove that if S is a connected, closed, orientable surface of genus $g > 0$, then the topological complexity of S is a linear function of its genus. (Received September 21, 2015)