1176-14-199 **Mariela Carvacho**, **Jen Paulhus*** (paulhus@math.grinnell.edu), **Tom Tucker** and **Aaron Wootton**. *Groups which act with almost all signatures.*

Riemann's Existence Theorem tells us that a group G containing elements of order $m_1, \ldots, m_r$ acts on a Riemann surface with quotient genus h if (1) the Riemann-Hurwitz formula is satisfied and (2) there are $2h + r$ elements $a_1, b_1, \ldots, a_h, b_h, g_1, \ldots, g_r \in G$ which generate the group, the g_i are of order m_i, respectively, and $\prod_{i=1}^{h}[a_i, b_i] \prod_{j=1}^{r} g_i = 1_G$. We call numbers $h, m_1, \ldots, m_r$ which satisfy (1) *potential signatures* and those that satisfy both (1) and (2) *actual signatures*. It is typically straightforward to determine if (1) is satisfied given a specific group G and list of orders of elements in G. However, determining (2) is much more difficult. We present several classification results of groups where all but a finite number of potential signatures are in fact actual signatures. (Received January 23, 2022)