1114-11-190 **Jaclyn A. Lang*** (jaclynlang@math.ucla.edu). *Images of Galois representations associated to Hida families.*

Fix a prime $p > 2$. Let ρ be the Galois representation coming from a non-CM irreducible component $\mathbb{I}$ of Hida's p-ordinary Hecke algebra. Assume the residual representation $\bar{\rho}$ is absolutely irreducible. Under a minor technical condition, we identify a subring $\mathbb{I}_0$ of $\mathbb{I}$ containing $\mathbb{Z}_p[[T]]$ such that the image of ρ is large with respect to $\mathbb{I}_0$. That is, the image of ρ contains $\ker(\mathrm{SL}_2(\mathbb{I}_0) \to \mathrm{SL}_2(\mathbb{I}_0/\mathfrak{a}))$ for some non-zero $\mathbb{I}_0$-ideal $\mathfrak{a}$. This paper builds on recent work of Hida who showed that the image of such a Galois representation is large with respect to $\mathbb{Z}_p[[T]]$. Our result is an $\mathbb{I}$-adic analogue of the description of the image of the Galois representation attached to a non-CM classical modular form obtained by Ribet and Momose in the 1980s. (Received August 26, 2015)