Contribution ID: **81** Type: **Poster contribution**

Optimization of distillation profiles for charmonium spectroscopy in lattice QCD

An improvement to the widely used distillation technique for hadron spectroscopy is presented in the context of meson spectroscopy. Introducing meson profiles in distillation space and optimizing them for the different operators and states of interest significantly increases the overlap between the created states and the energy eigenstates at no considerable extra cost. We show results including the effects of the disconnected diagrams, which lead to mass shifts and mixing with glueballs.

Authors: Prof. KNECHTLI, Francesco (Bergische Universität Wuppertal); URREA NINO, Juan Andres (Bergische Universität Wuppertal); Prof. PEARDON, Michael (Trinity College Dublin); Dr KORZEC, Tomasz (Bergische Universität Wuppertal)

Presenter: URREA NINO, Juan Andres (Bergische Universität Wuppertal)