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Jonathan Cohen* (`jonathan.s.cohen-1@ou.edu`). *Local Newforms for Odd Unitary Groups*. Preliminary report.

We construct a sequence K_n of compact open subgroups inside an odd, unramified unitary group G over a p -adic field. We then study the spaces of K_n -fixed vectors in irreducible representations of G , focusing on generic representations. In particular, we show that any generic representation contains a K_n -fixed vector for sufficiently large n . Our setup is analogous to the classical theory of newforms for GL_n , which was more recently developed by Tsai for split odd orthogonal groups. In the case of $G = U(2, 1)$, our results were previously proven by Miyauchi. (Received August 19, 2018)