Efimov states embedded in the continuum[1] SETH T. RITTEN-
HOUSE, N.P. MEHTA, J.P. D'INCAO, CHRIS H. GREENE, JILA and the De-
partment of Physics, University of Colorado, Boulder CO — By considering a mul-
tichannel generalization of the Fermi pseudopotential, we calculate the adiabatic
hyperspherical potential curves for three interacting bosons. The resulting energy
landscape has a rich and complex structure showing multiple length scales and inter-
nal symmetries. Our model indicates the existence of a universal diabatic potential
curve which supports a series of quasistable Efimov states embedded in the three-
body continuum. These states are energetically far removed from the scattering
threshold, and can be accessed using spectroscopic methods, opening experimental
possibilities for the exploration of a new realm of Efimov physics

Seth T. Rittenhouse
JILA and the Department of Physics, University of Colorado, Boulder CO