Abstract Submitted
for the 4CF14 Meeting of
The American Physical Society

Assessing the H_2O and OH Megamaser Connection: H_2O Megamasers in OH Megamaser Hosts BRANDON WIGGINS, Brigham Young University and Los Alamos National Laboratory, VICTOR MIGENES, Brigham Young University — Through megamasers are used to probe extragalactic phenomenon, questions continue to surround their production and connection to galactic processes. The observation that water and hydroxyl megamasers rarely coexist in the same galaxy has given rise to the hypothesis that the two megamaser species appear in different phases of nuclear activity. However, simultaneous hydroxyl and water megamaser emission has recently been detected in IC694. Studies of this object are underway but, because many megamasers have not been surveyed for emission in the other molecule, it remains unclear whether IC694 occupies a narrow phase of galaxy evolution or whether the relationship between megamaser species and galactic processes is more complicated than previously believed. We present results from the first 70 hours of a systematic search with the Green Bank Telescope for additional objects hosting both megamaser species. We provide discussion on our findings and their implications for the current paradigm.

Brandon Wiggins
Brigham Young University and Los Alamos National Laboratory

Date submitted: 11 Sep 2014 Electronic form version 1.4