

Abstract Submitted  
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**Physics Program at University of Hawai'i at Hilo - Survival in Extreme Environment** JOHN HAMILTON, MARIANNE TAKAMIYA, MARC ROBERTS, DANIEL O'CONNOR, Dept of Physics Astronomy, University of Hawaii at Hilo — The University of Hawai'i at Hilo is a undergraduate campus on the rural island of Hawai'i of 4,000 students. Being co-located with the premier astronomical observatories on Maunakea, the Dept. of Physics and Astronomy offers a BA in Physics and a BS in Astronomy. Over the past two decades, Astronomy has become the "tail wagging the dog" in the department. Astronomy majors outnumber Physics majors by almost 10:1. Also there are more faculty appointments in Astronomy than Physics. This asymmetry has produced a timely reassessment of the dual degree paths. The academic-financial environment has become extreme to traditional theoretical Physics program. Pressure to raise graduate rates (or eliminate programs with low rates) has mounted. At the same time, calls to provide more "service courses" are also increasing. Our Physics program is being re-invented to augment Astronomy with the Physics courses being more relevant for these majors. We encourage Astronomy majors to become double majors with Physics. Physics content is more applied (vs. theoretical) and includes hands-on labs in areas such as optics, electronics, and robotics. Since most secondary schools strive to host a robotics program, the lead staff should be the school's Physics teacher. This new applied Physics emphasis is better suited to support future Physics teachers. This emphasis on Applied Physics will result in attracting more students into teaching as a profession. We also hope that it will result in a rise of graduation rates in Physics.

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