

Letter of Intent for Snowmass2021: CEF4 Physics Education Topical Group

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Study of the Potential for a new Masters Degree in Applied Physics

R. Ruchti, University of Notre Dame
S. de Jong, Radboud University, The Netherlands
S. Malik, University of Puerto Rico Mayaguez

Abstract:

The field of Particle Physics has successfully brought many young researchers through the post-doctoral ranks, but the process is not necessarily providing meaningful opportunity for participation from broader demographic and geographic groups. To ameliorate and perhaps help correct this situation, a Master's Degree in Applied Physics is proposed with the aim of providing an advanced degree beyond bachelors level that would provide for a meaningful career path for students into a technological career in laboratories or the private sector, as well as the prospects for a springboard for those who find a PhD degree is possible, once they are engaged in such a program.

Content:

Among the facets of this proposed study:

1. A needs analysis to assess the value and chances of success of such a program.
2. Compare such a program with current models of Masters Degrees in engineering and MBA degrees.
3. Would the private sector buy in and support such a degree opportunity for current students and for their employees seeking career improvement.
4. Would such a degree provide training opportunities for those seeking technical careers at laboratories in our field or elsewhere or perhaps medical fields.
5. What is the curriculum for such degree(s) and could they be made available nationwide through shared curriculum?
6. Would universities and USIs buy in to such programs?