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Introducing a Framework for Physics Innovation and Entrepreneurship (PIE) Education.[1] BAHRAM ROUGHANI, Loyola University Maryland — A desired outcome for Physics Innovation and Entrepreneurship (PIE) education is preparing physics majors with an innovative and entrepreneurial mindset who are capable of opportunity recognition and adept in leveraging physics knowledge to address specific needs. Physics as a discipline is well-recognized to prepare students who become problem solvers and critical thinkers, gifted in dealing with abstract ideas and ambiguities in the context of complex and real-world problems. These characteristics when enhanced through appropriate combinations of curricular, co-curricular, and extra-curricular programs can prepare physics majors for careers and future challenges that may involve translating physics knowledge into useful products and services either as part of a technical team within an organization or through startups. A viable PIE education model prepares graduates for various career paths in addition to the traditional options such as pursuing graduate studies or becoming a science teacher. Having a well-defined "third option" for physics will benefit the robustness of the physics discipline through recruitment and retention of prospective students who in principle are interested in physics as a subject, but in practice they may overlook physics as their preferred major primarily because they are uncertain about a viable career path based on an undergraduate physics education.

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