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**Adam J Castillo\*** (adacasti@fiu.edu), 1170 NW 11th St., Apt. A-103, Miami, TX 33136.

*Implementing Mathematical Modeling Practices in Calculus at a Hispanic-Serving*

*Institution.* Preliminary report.

Mathematical modeling – using mathematics to represent, analyze, and provide insight into real-world phenomena – is a lens for supporting active learning in mathematics classrooms, particularly in the teaching and learning of calculus. However, new approaches to calculus that improve student outcomes at the postsecondary level are understudied. This talk will describe the first pilot year of a multi-year, NSF-funded, study that is being conducted to bring the authentic practices of mathematicians and mathematical modeling into the classroom. The pilot intervention involved the use of a studio-based approach complimentary to mathematical modeling, in which students learn content and the practices of mathematicians by actively doing mathematics in a lecture-reduced classroom with a focus on modeling processes themselves and the discourse employed by students working with peers. A summary of the impacts of this pilot intervention on student outcomes will be presented. This talk will also highlight the ongoing, cyclical process of evaluating, modifying, and implementing curricular materials and research instruments. (Received September 13, 2018)