

1125-35-3142 **C Flores***, One University Drive, California State University Channel Islands, BTE 2762,
Camarillo, CA 93012. *Projects for Undergraduates in the construction of solutions to truncated
Moment Problems and applications to PDEs*. Preliminary report.

This presentation outlines an investigation of the synergy between truncated moment problems and their wide applications in the theory of partial differential equations (PDEs). For instance, some PDEs display a special time evolution of the moments up to a finite order, such as in the case of the Benjamin-Ono equation, a model for long internal gravity waves. As part of this project, undergraduate student participants study how to derive useful measures with prescribed moment properties. In this talk, we discuss the motivation of the project, the undergraduate student involvement, as well as the mathematical results. (Received September 21, 2016)