Diana S Cheng\* (dcheng@towson.edu), 8000 York Road, Towson, MD 21252, and Tetyana Berezovski (tberezov@sju.edu), 5600 City Ave., Philadelphia, PA 19131. Getting on top of spinning: Modeling the figure skating upright spin.

We demonstrate mathematical modeling activities developed for undergraduate pre-service middle and secondary teachers based on the figure skating upright spin. The upright spin is not only an eye-catching sports movement to watch, but also an intriguing subject to study since the Guinness Book of World Record for fastest spin on the ice was set in 2015 by a middle school student! Our activities are based on video recordings and dynamic geometry representations of the upright spin. These activities span multiple mathematical content areas, including proportional reasoning, algebra, geometry, trigonometry, and calculus. Since the Common Core State Standards for Mathematical Practice promote the use of modeling in the classroom, activities such as these are particularly useful for pre-service and in-service teachers. (Received July 18, 2015)