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# SHORT PRESENTATIONS

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## ABSTRACTS

### 5.1 Measures of Center - Dr. Forest Fisher, Guttman Community College, NY

**Abstract:** Using GeoGebra to help students make sense of the mean and median as measures of center. The activity is designed according to APOS theory with the goal of developing an object understanding of the mean and median. In particular, students work with a dot plot in GeoGebra, and drag the dots around to dynamically manipulate the mean and median.

### 5.2 Investigating Parametric Equations on GeoGebra - Christa L. Fratto, Greens Farms Academy, CT

**Abstract:** This session focused on using GeoGebra to develop an understanding of parametric functions. We investigated the topic from a graphical, numerical and symbolic perspective with graphs and spreadsheets. We then used GeoGebra to model the motion of a swing

### 5.3 Polar Curves using Parametric Equations - Rasha Tarek, Greenwich H.S., CT

**Abstract:** This presentation showed how to use GeoGebra to investigate the connection between polar and rectangular equations with ease and learn how to utilize parametric equations to create some amazing polar curves.

### 5.4 Z-Scores - Dr. Audrey Nasar-Guttman, Community College, NY

**Abstract:** The presentation showed how to use GeoGebra to introduce  $z$ -scores as linear functions. This approach aims to help students make the connection between the normal distribution and the Cartesian plane in efforts to better understand relative standing and build upon students prior knowledge of linear functions. By visualizing the linear functions for a variety of normal distributions, students can interpret the domain, range, and  $x$ -intercepts in a dynamic environment.

### 5.5 Creating Transformations in GeoGebra - Dr. Adam Goldberg, SCSU

**Abstract:** The presentation will show how to create and use transformations with GeoGebra, starting with basic transformations such as rotations, reflections, and translations and moving to more advanced ones such as glide reflections and dilations.