

Speaker:

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Position: Associate Professor

Title: Bootstrapping Thinking: The Role of Engaging Mathematical Tasks

Intended Audience: High School

Type of Presentation

Preferred: Long Presentation (60 minutes)

Description:

Mathematical thinking is not too difficult to achieve among a class of students who are already accustomed to thinking mathematically. But it is very difficult to achieve within a whole class setting when this way of thinking and being is foreign to their day-to-day classroom experience. So, how then do we introduce mathematical thinking into such non-accustomed classrooms? One way is through specifically designed or selected tasks that have the ability to spark, not just interest and curiosity, but also mathematical thinking. I call such tasks bootstrapping tasks because they are able to achieve so much thinking where there previously wasn't much. One class of bootstrapping tasks are mathematical card tricks. That is, card tricks that work all the time and can be explained by mathematics.