1134-97-381 **Sepideh Stewart*** (sepidehstewart@ou.edu). *Moving between three Worlds of Mathematical Thinking in Linear Algebra.*

Linear algebra consists of many languages and representations. Instructors often move between these languages and modes fluently and expect students to follow along. In reality, many students do not have the cognitive framework to perform the move that is available to the experts. In this talk, employing Tall's three-world model, I present a set of linear algebra tasks that are designed to encourage students to move between the embodied, symbolic and formal worlds of mathematical thinking. We anticipate that creating opportunities to move between the worlds, will encourage students to think in multiple modes and to broaden their mathematical knowledge. (Received September 11, 2017)