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**Steven R LeMay\*** (slemay@fairfield.edu) and **Fabiana Cardetti** (fabiana.cardetti@uconn.edu). *Argumentation as a Habit of Mind in the Preparation and Professional Development of Teachers.*

Mathematical argumentation has recently received more prominent attention in K-12 classrooms which has immediate consequences in the preparation and professional development of teachers, including the critical intersection with representing mathematical concepts. It is important to understand teachers' perceptions of this intersection at all levels as they have a significant impact not only on the skills but also on the habits of mind that their students develop with respect to mathematical argumentation. This talk discusses results from a qualitative study that investigated (1) how educators conceptualized argumentation, (2) the role(s) and purpose(s) they attribute to their representations within argumentation, and (3) the criteria for representations they use/offer when arguing claims of generality. Moreover, this talk discusses the results' implications on the preparation and professional development of middle and high school teachers with respect to mathematical argumentation and proof. (Received September 25, 2017)