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Oyita Udiani* (udiano@vcu.edu), 1015 Floyd Avenue, Richmond, VA 23284. *Adaptive specialization in multi-species predator-prey systems.*

Competitive interactions among species and natural enemies determine both species diversity in ecological communities and phenotypic diversity of those species. For example, in bacterial communities, the cast of characters includes opportunistic predators (protists, predatory bacteria and phages) that differ in prey range (generalists vs. specialists) and the capacity to adapt in changing environments. In this talk, I will introduce a dynamical systems framework for the study of multi-species consumer-resource interactions within an ecosystem. I will discuss preliminary insights from this framework that can help uncover how selective trade-offs experienced by consumers may constrain resource use patterns within a community. (Received September 16, 2020)