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Heterogeneous Active Matter THOMAS KOLB, DAPHNE KLOTSA, Univ of NC - Chapel Hill — Active systems are composed of self-propelled (active) particles that locally convert energy into motion and exhibit emergent collective behaviors, such as fish schooling and bird flocking. Most works so far have focused on monodisperse, one-component active systems. However, real systems are heterogeneous, and consist of several active components. We perform molecular dynamics simulations of multi-component active matter systems and report on their emergent behavior. We discuss the phase diagram of dynamic states as well as parameters where we see mixing versus segregation.

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