EUROMAT 2019 / Raw Materials

SYMPOSIUM: 8

Title: Raw Materials and Applications to Active Matter		
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Abstract

Active Matter is an exciting field of Materials Science where systems, despite being out of equilibrium, produce a variety of emergent phenomena, i.e. vortices, swarms, and density waves. The field has received recently considerable attention because of the possibility of creating adaptable materials capable of self-healing and even self-replication. However, there are still three roadblocks that limit advance in this field: theoretical development is needed for understanding the physics that drive these systems; experimental research has not explored all the different type of materials that could be used to create active matter; finally, and perhaps, more importantly, there's a lack of focus on realizable applications for active matter. This symposium will bring theorists, experimentalists and engineers together to discuss how to better overcome these three limitations. For this, emphasis will be played in finding raw materials, both soft and hard, that could lead to active matter applications.