

Abstract Submitted
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Strongly confined active brownian particles YAOUEN FILY, APARNA BASKARAN, MICHAEL HAGAN, Brandeis University — We explore the effect of boundaries on active suspensions by considering non-aligning self-propelled particles confined by hard frictionless walls. In small boxes, the density and pressure are sensitively controlled by the shape of the box. We show those quantities can be predicted for arbitrary box shapes, and discuss the role of concavity and dimensionality. This in turn provides a tool to design and understand such confining boxes.

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