



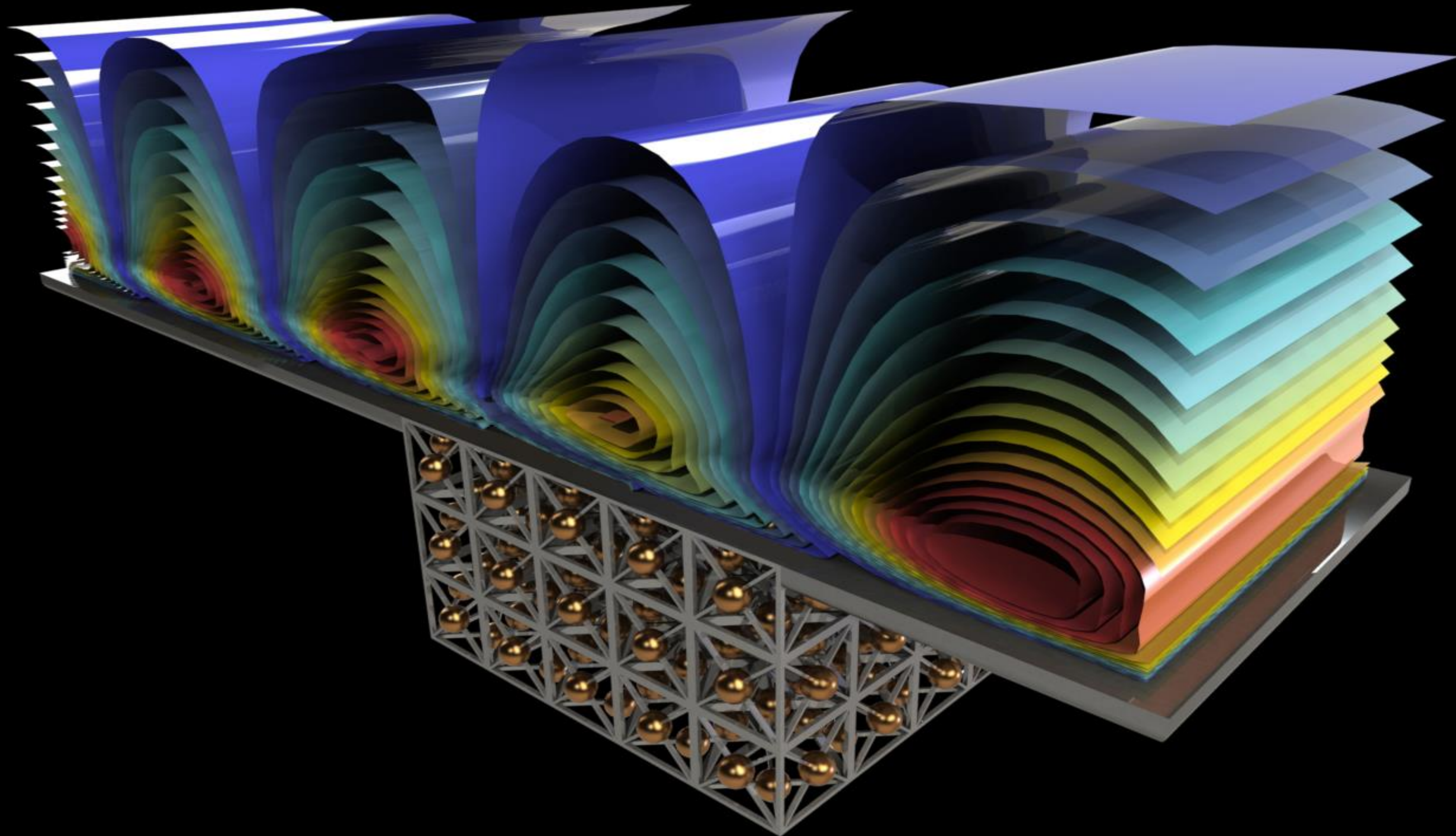
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Flow Stabilization by Crystals

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Reducing flow drag by crystals. When an enlarged and carefully tuned crystal is placed underneath a flexible surface, the flow passing over the surface will become more stable. Contours show predicted instability velocity field in the flow when a one-dimensional phononic crystal is installed versus an all-rigid surface. A three-dimensional lattice is depicted for illustration. Contours with a yellow-colored center represent a more stable region compared to ones with a red-colored center. A more stable flow exhibits less drag.