

Abstract Submitted
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Bird song: in vivo, in vitro, in silico ARYESH MUKHERJEE, SHREYAS MANDRE, LAKSHMINARAYAN MAHADEVAN, Harvard University, BIRD SONG TEAM — Bird song, long since an inspiration for artists, writers and poets also poses challenges for scientists interested in dissecting the mechanisms underlying the neural, motor, learning and behavioral systems behind the beak and brain, as a way to recreate and synthesize it. We use a combination of quantitative visualization experiments with physical models and computational theories to understand the simplest aspects of these complex musical boxes, focusing on using the controllable elastohydrodynamic interactions to mimic aural gestures and simple songs.

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