



Seeing tiny motions, and using sound to learn about vision

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Abstract

The world is filled with tiny motions, and these can be useful to visualize in order to help predict mechanical failures, study physical or biological processes, or perhaps to help diagnose disease. I'll describe a motion microscope we've developed, and show example outputs from it.

Mechanical motions generate sound, and sounds can let us infer material properties of the objects that generated the sounds. I'll also describe work on "visually indicated sounds", audio-visual signals which can be used to help train vision systems to infer object material properties.