

## **Nano-ultrasonics**

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Acoustics is one of the natural chosen tools for communication and imaging. However restrained by current technology, the utilized acoustic waves are limited in the GHz or lower frequency ranges while the acoustic wavelengths are mostly longer than 10 mm, thus limiting its application to nano-science and technology. In this presentation, we will review our recent research on nano-ultrasonic science and engineering. We will not only discuss the establishment of nano coherent acoustic waveform synthesis technique and nano-acoustic wave propagation control techniques, but also present our preliminary result on nano ultrasonic imaging.

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