



Karan Mehta

Graduate Institution: Massachusetts Institute of Technology

Graduate Discipline: Electrical Engineering

Hometown: Rancho Santa Margarita, CA

Relevant SC Research: Basic Energy Sciences

Research Interest:

My research so far has focused on optical devices in scaled silicon processes, of interest for optical interconnects in high-performance computing. In particular I am trying to develop a photodetector for infrared light in silicon, using nonlinear absorption that occurs efficiently in small (wavelength-scale), high quality optical resonators, which we design using photonic crystals. These resonators could also be of interest for other devices, including optical modulators.

I am also generally interested in nonlinear optical devices, certain areas of quantum optics and in potential potentially rather far-off applications of integrated optics techniques to cold atom experiments.

About Me:

I'm completing my second year as a graduate student in Electrical Engineering, with interests that fall under the umbrella of applied physics. I majored in electrical engineering and physics at UCLA, and came to MIT afterwards for graduate school. I enjoy research and as far as I can

foresee hope to focus on it throughout my career.

Outside of my interest in science and engineering, I love music. I've played the violin for as long as I can remember, whether alone or in various orchestras and chamber groups and ill-conceived jam sessions over the years. I take pleasure in amassing a collection of and listening to wildly different styles, and I also play a little guitar and an Indian hand drum, but much less often than the violin. I also enjoy running.



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