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Nanostructured Thermoelectrics

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The eternal quest to improve the figure of merit of thermoelectric devices, over wide ranges of temperature, has recently focused on nanostructured thermoelectrics. These include superlattices, quantum wires, and quantum dots. One clear benefit of nanostructure is to reduce the thermal conductivity. We review our calculations of heat flow which have been confirmed by recent experiments. We also discuss our theory of the thermoelectric properties of crystals of quantum dots.