# Hydrodynamic finite-size scaling of the thermal conductivity in glasses

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In the past few years, the theory of thermal transport in amorphous solids has been substantially extended beyond the purely harmonic Allen-Feldman model. The resulting formulation, based on the Green-Kubo linear response or the Wigner-transport equation, bridges this model for glasses with the traditional Boltzmann kinetic approach for crystals. The computational effort required by these methods usually scales as the cube of the number of atoms, thus severely limiting the size range of computationally affordable glass models. Leveraging hydrodynamic arguments, we show how this issue can be overcome through a simple formula to extrapolate a reliable estimate of the bulk thermal conductivity of glasses from finite models of moderate size. We showcase our findings for realistic models of paradigmatic glassy materials.