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# APPLICATION OF THE DISPERSIVE OPTICAL MODEL TO $^{208}\text{Pb}$

*Michael Keim*

*Mentor: Willem Dickhoff*

A review of developments for the application of the dispersive optical model (DOM) to  $^{208}\text{Pb}$  is presented. By providing appropriate parameters describing real and imaginary parts of a nonlocal self-energy, connected through a dispersion relation, reasonable reproductions of both scattering and bound-state properties are generated. By fitting these parameters to experimental data, a more accurate description of the neutron skin may be achieved, which would have implications for the physics of neutron stars.