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Extinction by Single and Multiple Particles[1] MATTHEW BERG, CHRISTOPHER SORENSEN, AMIT CHAKRABARTI, Kansas State University — The combined effect of scattering and absorption is referred to as extinction and is responsible for the redistribution of radiant energy by a particle. This presentation will show that extinction is due to wave interference. Simulations of the energy flow caused by the interference graphically demonstrate how extinction redistributes the energy of incident light. Both single and multi-particle systems are considered. A conceptual, phase-based explanation is given that builds on previous work and illustrates the physical meaning of the optical theorem. Implications regarding the measurement of extinction are discussed.

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