



Física  
FACULTAD DE CIENCIAS  
FÍSICAS Y MATEMÁTICAS  
UNIVERSIDAD DE CHILE

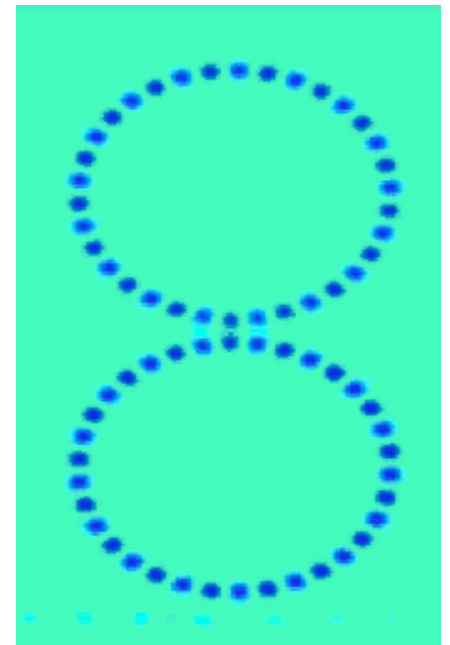
# Introducción a la Optica Moderna

Profesor: David D. Smith  
University of Alabama in Huntsville

Primavera 2009, 10 UD

## Course description:

Course Description: Optics is light work! It is everywhere, beginning with sources of light, continuing with propagation, interactions, and finally detection. How do we create, control, utilize, image, and detect light? This course will provide a survey of the tools that engineers and physicists need for solving problems in modern optics. Students will develop their skills in optics by working on projects that can be applied directly in the field. The first part of the course will cover topics in classical optics, in particular geometrical or ray optics (ray tracing, aberrations, and lens design), and physical or wave optics (interference, coherence, diffraction, polarization, and scattering). In the second part, students will be introduced to selected topics in nonlinear optics, lasers, and quantum optics. Additional reference materials such as journal articles and technical notes will supplement the course notes. Prerequisites: Electricity and Magnetism



**Interesados:** Contactar a Rodrigo Soto, [rsoto@dfi.uchile.cl](mailto:rsoto@dfi.uchile.cl)

(\*) David D. Smith is Sponsored by the U.S. Department of State's Fulbright Program and the MECESUP program, Ministerio de Educación, Chile.