

1154-34-420

Alfonso Castro* (castro@g.hmc.edu), Department of Mathematics, Harvey Mudd College, Claremont, CA 91711. *Beyond the first semester on differential equations.*

Concepts and pedagogical strategies leading to the understanding of research questions on semilinear ordinary and partial differential equations will be discussed. The role of singular differential equations in finding the spectrum of the Laplacian operator restricted to radial functions and the existence of radial solutions to semilinear differential equations will be considered. (Received September 04, 2019)