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Gisele Ruiz Goldstein* (ggoldste@memphis.edu), Department of Mathematical Sciences,
University of Memphis, Memphis, TN 38138. *The Ubiquitous Presence of Dynamic Boundary
Conditions in Science.*

Dynamic boundary conditions play an essential role in accurately modeling complex physical interactions on the boundary. In this lecture we explain the role of dynamic boundary conditions in modeling diffusion processes, wave propagation, and problems in materials science. The connection between dynamic boundary conditions and Wentzell boundary conditions will be explained, and rigorous mathematical results related to these boundary conditions will be presented. (Received August 25, 2015)