## **ONÉSIMO HERNÁNDEZ-LERMA**, Mathematics Department, CINVESTAV-IPN, A. Postal 14-740, Mexico, D.F. 07000, Mexico

Stochastic Control Systems with Long-Run Average Criteria

Stochastic control problems with long-run average criteria (also known as *ergodic criteria*) were introduced by Richard Bellman (1957) in the context of a manufacturing process, and nowadays play a predominant role in control applications to queueing systems, telecommunication networks, and economic and financial problems, to name a few.

This talk presents some recent advances on *discrete* and *continuous* time stochastic control systems with long-run average criteria, including overtaking (or catching-up) optimality, bias optimality, discount-sensitive criteria, and the existence of average optimal strategies with minimum variance.