



Ph.D. in Mathematics and Computer Science

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APPROXIMATE DYNAMIC PROGRAMMING FOR DYNAMIC OPTIMIZATION PROBLEMS

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Approximate dynamic programming (ADP) has evolved, initially independently within operations research, computer science and the engineering controls community, all searching for practical tools, for solving consequential stochastic optimization problems. More so than other communities, operations research continued to develop the theory behind the basic model introduced by Bellman with discrete states and actions, even while the authors as early as Bellman himself recognized its limits due to the “curse of dimensionality” inherent in discrete state spaces. In the operations research community ADP has been equated with the use of value function approximation which has separated it from the stochastic programming community (a form of lookahead policy) or simulation optimization (which typically involves policy search). The aim of lectures is to provide a broad overview of approximate dynamic programming.



MON 10/06 TUE 11/06
WED 12/06 THU 13/06



MT 12 - CUBO 30 B - 2ND FLOOR



9:00 - 13:00