1014-49-1739 **José María Menéndez*** (menendez@vt.edu), 460 McBryde Hall, Virginia Tech, Blacksburg, VA 24061-0123, and **Martin V. Day**, 460 McBryde Hall, Virginia Tech, Blacksburg, VA 24061-0123.

On convergence of computational methods for optimal control of re-entrant queues on bounded domain.

The numerical approximation to the solution of an optimal control on re-entrant queues in a bounded domain poses the natural question of convergence. By using the dynamic programming approach, we can either explore the convergence of the viscosity solution of the corresponding Hamilton-Jacobi equation, via discretization in time and space, or the convergence in distribution of the value function on the discretized state space on which a Markov chain approximation has been constructed. (Received September 29, 2005)