

The Hopf-Lax formula and some applications

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Abstract:

I will review some classical and more recent result about the Hopf-Lax-Oleinik representation formula for solutions of convex Hamilton-Jacobi equations. Applications to problems in optimal control and large deviations problems on the Heisenberg group will be indicated. A numerical scheme for the computation of the solution of the Cauchy problem for the HJ equation will be described.