The Hong Kong Polytechnic University
Department of Applied Mathematics

Colloquium

Non-monotone and Monotone Properties of the Barzilai-Borwein Method

by

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Abstract

Gradient methods are widely used for large scale optimization problems. The Barzilai-Borwein method is a famous gradient method which chooses the step-size based on the weak quasi-Newton condition. Though the Barzilai-Borwein method has a nice convergence results and remarkable numerical performance when it is applied to convex quadratic minimization, it is well-known that the BB method is not monotone. In this talk, we analyze non-monotone properties of the BB method and explore which merit functions could ensure the monotonicity of the BB method when it is applied to convex quadratic functions.

Date : 27 February, 2018 (Tuesday)
Time : 2:30p.m. – 3:30p.m.
Venue : TU801, The Hong Kong Polytechnic University

* * * ALL ARE WELCOME * *