SEMINAIRE LMPA 2013-2014

Date: Lundi le 2 juin 2014 à 15:00

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Titre: Francis's Algorithm

Résumé : John Francis's implicitly shifted QR algorithm turned the problem of matrix eigenvalue computation from difficult to routine almost overnight some fifty years ago. It was named one of the top ten algorithms of thetwentieth century by Dongarra and Sullivan, and it continues to be themost important workhorse for eigensystem computations. This talk, which is partly historical, partly pedagogical, and somewhat opinionated,will describe a novel approach to and a novel way of thinking about this important algorithm. The new approach is highly economical and exposes clearly the connections between Francis's algorithm and other important matrix computation algorithms.