

THE UNIVERSITY



OF HONG KONG

Department of Mathematics

## Numerical Mathematics and Applied Analysis Group Seminar (NMAA)

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### SCD Methods for Linear Systems

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Univ Federal Do Parana, Brazil

on Tuesday, February 22, 2005 at 2:30p.m.  
in Room 517, Meng Wah Complex

#### Abstract

The semi-conjugate direction vectors are introduced to establish the left conjugate direction method for solving general linear systems. Some nice properties of the method are presented. Several techniques are discussed to overcome the break-down problem. Some variant of the method is proposed. The method was generalized to complex case. For the complex case, the method has very nice properties. Finally the method was applied to solve several large scale linear systems arising from numerical methods of partial differential equations. The numerical results illustrate that the method is very competitive. Since the work is preliminary, there are still many open problems to be solved.

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*All are welcome*

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*For enquiries, please call 2859 2255.*