

Fischer-Burmeister Complementarity Function on Euclidean Jordan Algebras*

Lingchen Kong¹, Levent Tunçel², and Naihua Xiu³

C & O Research Report: CORR 2007–17
(November 26, 2007)

Abstract

Recently, Gowda et al. [10] established the Fischer-Burmeister (FB) complementarity function (C-function) on Euclidean Jordan algebras. In this paper, we prove that FB C-function is strongly semismooth everywhere, and that the derivatives of the squared norm of FB C-function are locally Lipschitz continuous.

Keywords: Fischer-Burmeister function, Euclidean Jordan algebra, strong semismoothness, Lipschitz continuity.

MSC2000 Subject Classification: primary: 65K05, 90C33; secondary: 26B05, 15A09.

Abbreviated Title: FB C-function on Euclidean Jordan algebras