

ON SEMI-EXPLICIT RUNGE-KUTTA METHODS AND THEIR
STABILITY PROPERTIES

Iulian COROLAN

Abstract. Semi-explicit Runge-Kutta methods of order 3 are discussed and A-stability and L-stability of these methods are studied.

MSC 2000: 65L06, 65L20

Keywords: semi-explicit (diagonally implicit) Runge-Kutta methods, A-stability, L-stability, stability function.