Symmetric collocation ERKN methods for general second order oscillatory differential equations

Yonglei Fang (Zaozhuang University)

This talk focus on the constuction of new symmetric collocation ERKN methods for second order oscillatory problems by Lagrange interpolation. Linear stability of the new ERKN methods is analyzed. Numerical experiments show the high effectiveness of the new ERKN methods compared to their RKN counterparts.