

Preface

This special issue published eight papers contributed by invited speakers from three conferences in 2015, namely (1) “International Workshop On Integrable Systems: Mathematical Analysis and Scientific Computing” held in the Center for Advanced Study in Theoretical Sciences (CASTS) on October 17–21, 2015 at National Taiwan University, (2) “The First Annual Meeting of Applied Mathematics: Frontier Aspects of Applied Mathematics” held in the CASTS on December 7–8, 2015 at National Taiwan University, and (3) “The Workshop On Spectral Graph Theory and Its Applications” held in the Department of Applied Mathematics on December 9–10, 2015 at National Chiao Tung University.

Five papers “Numerical study of the stability of the Peregrine solution”, “The Degasperis-Procesi equation, its short wave model and the CKP hierarchy”, “Weighted essentially non-oscillatory schemes for Degasperis-Procesi equation with discontinuous solutions”, “Planar unimodular Baker-Akhiezer function for the nonlinear Schroedinger equation” and “Reverse Space and Time Nonlocal Coupled Dispersionless Equation and its Solutions” are contributed by the conference: “International Workshop On Integrable Systems”. Two papers, “Spectral characterizations of two families of nearly complete bipartite graphs” and “The integrally representable trees of norm 3” are contributed by the conference of “On the Spectral Graph Theory and Its Application”. One paper “Stability of the fourth order Runge-Kutta method for time-dependent partial differential equations” is contributed by the conference of “The First Annual Meeting of Applied Mathematics”.

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