

Table of Contents

A New Parallel Adaptive DSMC Algorithm for Unsteady Flows in Complex Geometries 1
Mirvat Shamseddine and Issam Lakkis

Brain Tumor Detection and Segmentation Using Hybrid Approach of MRI, DWT and K-Means 7
Parvinder Singh and Mansi Lather

A Phenomenological Model of Energy Relaxation in Disordered Insulators Irradiated by Ultrafast Proton Pulses 13
Lorenzo Stella, Jonathan Smyth, and Brendan Dromey

Ultrafast Photoionization and Energy Absorption in Bulk Silicon and Germanium 17
Tzveta Apostolova and Boyan Obreshkov