Table of Contents

2.5D Extension of Neighborhood Filters for Noise Reduction in 3D Medical CT Images	1
Maria Storozhilova, Alexey Lukin, Dmitry Yurin, and Valentin Sinitsyn	1
Implementing Irradiance Cache in a GPU Realistic Renderer Vladimir Frolov, Konstantin Vostryakov, Alexander Kharlamov, and Vladimir Galaktionov	17
Adaptive Generation of Color Anaglyph	33
Audio-Adaptive Animation from Still Image	48
Auto-calibration for Image Mosaicing and Stereo Vision	63
GPU Ray Tracing – Comparative Study on Ray-Triangle Intersection Algorithms	78
Learning Graph Laplacian for Image Segmentation	92
Virtual Reality Technology for the Visual Perception Study	107
Locally Adapted Detection and Correction of Unnatural Purple Colors in Images of Refractive Objects Taken by Digital Still Camera Mikhail Matrosov, Alexey Ignatenko, and Sergey Sivovolenko	117
Some Theoretical Issues of Scientific Visualization as a Method of Data Analysis	131

XIV Table of Contents

Pose Refinement of Transparent Rigid Objects with a Stereo Camera Ilya Lysenkov and Victor Eruhimov	143
Analysis of Space-Time Flow Structures by Optimization and Visualization Methods	158
Author Index	169