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EDITORIAL

Editorial to the Special Issue on WSCG'01

We have the pleasure to introduce to you the special issue from the Conference WSCG'2001, the 9th International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision 2001, held at the University of West Bohemia, in Plzen, in Czech Republic, on February 5–9, 2001.
From this conference, five best presentations that have been carefully selected and papers have been reviewed by the editorial board of the Visual Computer Journal.
The first paper presents an algorithm on how to exploit the Hessian matrix for content-based retrieval of volume-data features. The volume graphics today is starting to develop in the same way as the surface graphics did a few years ago and it makes this paper an important topic. This paper is written by J. Hladůvka and E. Gröller of the Vienna University of Technology. The second paper deals with the transformation of dynamic facial image sequences using static 2D prototypes. Although many papers have been published in this domain, there is still large room for improvement. This work is presented by B. Tiddeman and D. Perret of the Department of Psychology of the University of St. Andrews in UK. The next paper, written by R. Satherley and M.W. Jones of the University of Wales in UK describes a hypertexturing complex volume objects. It deals again with volume data sets and demonstrates how volume data sets may be adapted in order for hypertexture to be applied. The next paper, written by N. Frisch, D. Rose, O. Sommer and T. Ertl, all from the Computer Science Department of the University of Stuttgart, describes a visualization and pre-processing of independent finite-element meshes for car crash simulations. The main application of this technology is in the car industry where there is a need to simulate car body design and car crashes to evaluate the passenger's security. Finally, the last paper, titled general relativistic image-based rendering, is authored by D. Kobras of the University of Tübingen, D. Weiskopf and H. Ruder from the University of Stuttgart in Germany. This paper shows how conventional image-based rendering algorithms can be extended to visualize general relativistic effects in a restricted class of spacetimes.

Co-guest editors of this special issue:

Vaclav Skala
Nadia Magnenat-Thalmann
Univ. of West Bohemia, Czech Republic
MIRALab-University of Geneva

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