# PREFACE

## Special Issue on Pacific Graphics '99 in *Graphical Models*

Pacific Graphics '99, the seventh international conference on computer graphics and its applications, was held October 5–7, 1999, in Seoul, Korea. Following the success of the six previous conferences held in Korea (1993, 1995, 1997), China (1994), Taiwan (1996), and Singapore (1998), we received 81 submissions from 11 different countries all over the world and, after peer review, selected 30 papers for publication in the conference proceedings published by the IEEE Computer Society. The three papers in this special issue represent the best of the 30 selected papers in the area of graphical models and image processing.

The first paper, by Bajaj *et al.*, presents a new method for 3D texture mapping designed for real-time rendering of polygonal models. Potential texture memory problems are resolved by compressing 3D textures using a wavelet-based encoding method. Several results illustrate the approach.

The next paper, by Choi and Lee, discusses the use of uniform cubic B-splines in the context of image warping and morphing, where the injectivity of the B-spline mapping is crucial in obtaining desirable results. Based on a geometric interpretation of the injectivity conditions, the authors present some sufficient conditions for injectivity, which are represented in terms of control point displacements and can be easily tested.

The third paper, by Klein *et al.*, considers the problem of reconstructing triangular surfaces from given contours and presents a novel solution to both the branching and correspondence problems. The main idea is to employ 2D discrete distance fields enhanced with correspondence information. In addition, these 2D distance fields can be converted to a 3D distance field that can be used for distance calculations during a subsequent simplification step.

*Myung-Soo Kim*
Guest Editor

*Hans-Peter Seidel*
Guest Editor

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