DESCRIPTION

Dedicated to scientific visualization—the new approach in the field of numerical simulation—which focuses on basic geometric, animation and rendering techniques specific to visualization, as well as concrete applications in sciences and medicine. Chapters are written by recognized experts in various aspects of visualization. Following an overview of graphics workstations and processors, covers fundamental problems of computational geometry, various aspects related to representing volume and special methods for modelling natural objects. Particle systems and modular maps, basic and advanced techniques in computer animation, and robotics methods for task-level and behavioral animation are discussed, in addition to applications of visualization and graphics simulation, and computer vision.

ABOUT THE AUTHOR

Prof. Daniel Thalmann is a Swiss and Canadian Computer Scientist and a pioneer in Virtual Humans. He is currently Honorary Professor at EPFL, Switzerland, and Director of Research Development at MIRALab Sarl.