



北京大学高能效计算与应用中心学术报告

Invited Talk, Center for Energy-Efficient Computing and Applications

DEVELOPING COMPUTATIONAL TECHNIQUES FOR COMPLEX PHYSICAL SYSTEMS: VISUAL EFFECTS AND BEYOND

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MIT CSAIL

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理科五号楼410会议室



ABSTRACT: In this talk I will present my recent research on building efficient computational tools in modeling complex physical systems for applications in computer graphics, computational physics, and computational fabrication. I will present a series of computational frameworks for visually modeling of various types of complex fluid phenomena, ranging from smoke, fire, and water in large open space, to surface tension driven phenomena such as soap bubbles, to non-Newtonian flow including paint and toothpaste. I will also present our latest computational design tools for interactive multicopter design and 3D printing applications.

BIOGRAPHY: Bo Zhu is a postdoctoral researcher at MIT CSAIL. He received his Ph.D. from the Department of Computer Science at Stanford University in 2015, advised by Professor Ron Fedkiw. He got his Bachelor and Master's degrees both from Shanghai Jiao Tong University. His research interests mainly include computer graphics, computational physics, and computational fabrication. Particularly, his research is focused on developing efficient computational techniques for simulation and optimization of complex physical systems.