Haozhe Su

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EDUCATION

Rutgers University New Brunswick, New Jersey

- PhD. in Computer Graphics, Department of Computer Science *Aug. 2018- present*
- GPA: 3.9/4.0

University of Science and Technology of China(USTC) Hefei, China

- B.S. Physics, School of Physical Sciences *Aug. 2014- Jun. 2018*
- GPA: 3.5/4.3 or 85.7/100.0

PUBLICATIONS

- **A Novel Discretization and Numerical Solver for Non-Fourier Diffusion**, **Haozhe Su***, Tao Xue* (*equal contributions), Chengguizi Han, Chenfanfu Jiang, Mridul Aanjaneya (SIGGRAPH Asia 2020) *(Project)*
- ***(In preparation)* A Unified Second-Order Accurate in Time MPM Formulation for Simulating Viscoelastic Liquids with Phase Change**, **Haozhe Su***, Tao Xue* (*equal contributions), Chengguizi Han, Mridul Aanjaneya

RESEARCH EXPERIENCE

- **Research Trainee at Laboratory for Interactive Virtual Environments(LIVE)**
  Rutgers University *May. 2018 - Present*
  ***Advisor*: Prof. Mridul Aanjaneya**
  - Work with Prof. Mridul Aanjaneya on the Material Point Method(MPM) to numerically simulate elastic bodies, fluid dynamics, heat transfer and diffusion process.
  - Develop a unified solver for simulating both Fourier and non-Fourier diffusion, which is the driving force for phenomena including hydro-gel/sponge expansion, smoke, snowflake/dendrite/coral reef growing process.
  - Propose a 3-in-1 fluid solver which is able to correctly simulate the Newtonian viscous flow, the non-Newtonian viscous flow and non-viscous flow. It is also capable of recovering the well-known models such as Oldroyd-B and UCM.
- **Research Intern at Siemens Corporate** *May. 2019 - Aug. 2019*
  ***Advisor*: Dr. Suraj Musuvathy**
  - Implement framework software for reading volume data, displaying graphical results and saving output in desired format(.obj/.csv file)
  - Implement selected surface smoothing algorithms as software prototype for analysis.
  - Develop a Qt-based GUI for visualization and interactions.

SKILLS

- **Programming Language** C/C++
- **Material Point Method for Solid and Fluid Simulation**
- **Grid-Based Method for Fluid Simulation**
- **Modeling Tool** Blender, Maya
- **Digital Art Tool** Sketchbook, Processing