High-Fidelity Modeling and Simulation of Complex Material

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Project 1: Appearance preserving data reduction for volumetric models.
Right: high-resolution representations; Left: data reduced representations.

Project 2: We convert complex volumetric representations (right) to much simpler surfaces (left), significantly accelerating the simulation process while preserving the appearance even at the yarn-level.

Ref: 25.4GB
Ours: 45.6MB
Ref: 96min
Ours: 1.8ms