

An Interactive and Rip-able Cloth

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The simulation of cloths in computer graphics is a difficult problem. In particular, many papers are devoted to numerical integration of cloth particles and the collision of particles with both external objects and the cloth's own particles. My research focuses on the ability to tear a cloth, a topic that has not been explored. Tearing a cloth is of great difficulty because of the finite amount of particles in the system. By refining the cloth's mesh around the site of a rip, we can achieve results that are believable to the eye while introducing a small amount of complexity. By maintaining realism and interactivity, my method is suitable for both animation rendering and game systems.