要的意义;

(2) 从扩展材质的角度而言,材质的设计和编辑工作将是未来最主要的研究方向;而对于编辑材质的稳定性研究、材质的属性编辑范围以及对效果的定性和定量分析还存在一定的难度,如何获得更稳定的材质模型是未来研究的重点;

(3) 时间效率.基于物理的仿真方法中,时间效率是不容忽视的因素,在高逼真动画效果与时间效率二者之间追求平衡,是各个应用领域需要考虑的重要问题.如何高效地获得满足设计师动画需求的材质,是未来材质编辑工作面临的挑战.对于形变体仿真而言,为获得满意的动画效果,调整参数繁琐而耗时.目前,已经有一些研究工作是利用数据驱动的方式构建数据库或者采用交互地调整参数方式直观地获得材质模型,在效率上已经有了大幅度改进.随着机器学习领域的深入研究,借鉴其研究思路也会给形变体的材质设计带来新的研究方向.

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