



Real-Time Hair Modeling and Rendering using Ray Tracing on GPU

By Nasim Sedaghat

LAP Lambert Acad. Publ. Mrz 2010, 2010. Taschenbuch. Book Condition: Neu. 220x150x8 mm. Neuware - Hair simulating is still a very challenging research topic and has progressed a lot recently. An accurate physical model taking into account all properties of hair could solve most of the problems in this area however, the difficulties in such an approach necessitate the development of approximation-based simulations. We introduced an updated version of key strands-based hair modeling along with various realism issues and provided the results of this hair model. We defined and introduced a new geometric object to represent hairs, Continual Cylinders, and the reasons for this selection especially over Generalized Cylinders. Hair rendering is done using famous ray tracing algorithms but on a GPU rather than a CPU which due to its performance we succeeded to render 10,000 3D hair strand in real-time. 128 pp. Englisch.



Reviews

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