CfACTs Introduction Framestore is a world leading visual effects company,

producing award winning content within the domains of feature film, long form, commercial and interactive entertainment. Framestore s Rendering Team develops and supports the software used for rendering our production quality visual effects and includes our in-house renderer Freak , state-of-the-art shader libraries, and artist focused rendering tools that are used globally across all of Framestore s film projects. We believe there exists an opportunity for practical, production focused innovative research that can both extend the domain of knowledge and directly impact the quality and efficiency of the imagery that we create. We envisage, by allowing researchers to leverage our cutting edge workflows and technologies, and use our production level datasets, we can inspire, accelerate and focus innovation that can be applied within the production context.

Application of Machine Learning to Problems in Light Transport

Introduction High end visual effects production demands ever more convincing and complex imagery. This often includes difficult to solve light transport situations such as nested dielectric media, volumetric multiple scattering and complex lighting scenarios. Typical approaches, such as forward path tracing, struggle with many important transport types and computation times for reaching acceptable levels of variance can be significant. We would like to research the application of machine learning (ML) techniques to solve and accelerate these difficult to compute scenarios. In order to be applicable to production rendering, important considerations include temporal coherency, scalability and user control. Key areas of interest include transport cl7T0 1 Tdant ac