A RECEIVER−DRIVEN MULTICASTING FRAMEWORK FOR 3DTV TRANSMISSION (ThuAmOR12)

Author(s) :

Engin Kurutepe (Koç University, Turkey)
M. Reha Civanlar (Koç University, Turkey)
A. Murat Tekalp (Koç University, Turkey)

Abstract :

Contemporary television and video experience is not interactive and users have little or no choice on their viewing angle over the scenes they watch . There is a demand for a real 3−D interactive experience which would allow users to view scenes through virtual cameras chosen by their head and eye locations as in real life. However, among other issues the amount of bandwidth required to transmit very large Image Based Rendering (IBR) representations of the scene to end users is still an unsolved problem In this paper we propose a novel networking scheme to enable users to automatically stream only the parts of the light field representation, which will be used to render the current viewpoint. The proposed system also incorporates prediction of future views to prefetch streams, which are likely to be needed in the near future as the viewpoint changes over time.

Menu