H.264/AVC−COMPATIBLE CODING OF DYNAMIC LIGHT FIELDS USING TRANSPOSED PICTURE ORDERING (ThuAmOR12)

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Abstract :

A dynamic light field or a multi−view video sequence requires capturing an object or a scene with multiple cameras. This allows viewing the scene from arbitrary viewpoints without the need for geometric information. As this leads to very high data rates, efficient compression is necessary. In this paper, we present an approach to exploiting the spatial correlation between the different camera views in addition to the temporal correlation within each view. A simple resorting scheme is introduced, which allows the usage of an off−the−shelf video coder to compress multi−view video data. Coding results are shown using the H.264/AVC video coding standard. It is discussed how the coding efficiency depends on the frame rate and the camera distance of the sequence.

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