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**ISO/IEC JTC 1/SC 29/WG 11****Coding of moving pictures and audio****Convenorship: UNI (Italy)**

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**INTERNATIONAL ORGANISATION FOR STANDARDISATION  
ORGANISATION INTERNATIONALE DE NORMALISATION  
ISO/IEC JTC 1/SC 29/WG 11  
CODING OF MOVING PICTURES AND AUDIO**

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**Geneva, CH – October 2019**

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## **Abstract**

Core experiment 13.30 intends to evaluate and track proposed minor optimisations of the G-PCC design.

## **Mandate**

The mandate of the core experiment is to evaluate proposed optimisations to —

- examine the coding efficiency of each proposed method,
- examine the complexity of each proposed method,
- examine the combined effects of all proposed methods.

## **Participants**

Company	Contact	E-mail	Status
Apple	David Flynn	<a href="mailto:davidflynn@apple.com">davidflynn@apple.com</a>	Proponent
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## **Timeline**

2019-11-01 Expected release of TMC13v8  
2019-11-15 Distribution of CE software and results for verification  
2019-12-01 CE verification feedback  
2020-01-08 MPEG 129 document upload deadline  
2020-01-13 MPEG 129, Brussels

## **Evaluation**

All CTC [1] test conditions for TMC13 will be evaluated using category one and three content.

## **Description of proposals**

### **m51011 – Use of L1 instead of L2 distance for neighbour search**

This contribution [2] proposes to use the L1 (Manhattan) distance between points for the purpose of level-of-detail construction in attribute coding. This contrasts to the current G-PCC design that uses L2-squared (Euclidean) distances.

## **References**

- [1] 3DG, “Common Test Conditions for PCC,” ISO/IEC JTC1/SC29/WG11, 128th meeting, Geneva, Tech. Rep. w18883, Oct. 2019.
- [2] Z. Gao, D. Flynn, A. Tourapis, and K. Mammou, “[G-PCC][New proposal] Using L1 norm for nearest neighbour search in Prediction and Lifting schemes,” ISO/IEC JTC1/SC29/WG11, 128th meeting, Geneva, Tech. Rep. m51011, Oct. 2019.