EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Data Management Systems (4)

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SAR RAW DATA REDUCTION USING DYNAMIC 4 PATH – BLOCK GAIN TREE STRUCTURED
VECTOR QUANTIZATION

Abstract

A SAR payload used in Satellite sends a ground station its SAR raw data by wireless datalink for post-processing, then the efforts of reducing its SAR raw data have been studied much. Vector Quantization among these efforts is used much with block adaptive quantization. Due to heavy data search load of Vector Quantization between codebook and image data, Tree Structured Vector Quantization(TSVQ) is introduced instead of full-search-codebook. In this paper, Dynamic 4 Path - Block Gain Tree Structured Vector Quantization(D4P-BGTSVQ) which has 4-path tree structures with block gain is introduced instead of conventional 2-path TSVQ selectable at each tree node, and we suggest the best solution by comparing SNR and calculation load.