

Tetra-alphabetic hypercubes and atmosphere sampling

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Abstract

Tetra-alphabetic hypercubes use four distinct alphabets with orthogonality between them. These hypercubes enable balanced four-dimensional sampling. In the case of atmospheric studies, we will consider the four dimensions as latitude, longitude, height and time.

An application will be presented, showing the advantages of our approach to sampling obtained from atmospheric data and its consequences for the study under huge amounts of data, computational procedure and quickness in obtaining results.

Keywords

Atmosphere, Balanced sampling, Tetra-alphabetic hypercubes.

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