



Conceptual compression for pattern recognition in 3D model output

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The problem of data compression is closely related to the idea of comprehension. If you understand a scene at a qualitative level, this should enable you to make reasonable predictions about its contents, meaning that less extra information is needed to encode it precisely.

These ideas have already been applied in the field of image compression; see for example the work on conceptual compression by Google DeepMind. Applying similar methods to multidimensional atmospheric data could have significant benefits. Beyond reducing storage demands, the ability to recognise complex features would make it far easier to interpret and search large volumes of meteorological data. Our poster will present some early work in this area.