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Title: The Lossless compression of Radio Astronomy Data Flows

Abstract

The modern practice of radio astronomy is characterised by the presence of large data volumes and rates, arguably overwhelmingly so in the case of proposed instruments such as the SKA. The ability to compress these data flows would have obvious benefits. By recourse to Probabilistic Information Theory I will discuss the conditions under which lossless compression of typical radio astronomy data is possible and present results of compression experiments.