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The Detector Final State pattern: Using the Web Ontology Language to describe a Physics Analysis

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The Data and Software Preservation for Open Science (DASPOS) collaboration has developed an ontology for describing particle physics analyses. The ontology, a series of data triples, is designed to describe dataset, selection cuts, and measured quantities for an analysis. The ontology specification, written in the Web Ontology Language (OWL), is designed to be interpreted by many pre-existing tools, including search engines, and to apply to both theory and experiment published papers. This paper gives an introduction to OWL and this branch of library science from a particle physicist's point of view, specifics of the Detector Final State Pattern, and how it is designed to be used in the field of particle physics primarily to archive and search analyses. Also included is a description of a SPARK end-point for meta-data powered search. A general introduction to DASPOS and how its other work fits in with this topic will also be described.

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Preservation of analysis and data

Secondary Keyword (Optional)

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