



Abstract ID : 33

IVOA Spectral Models and Access in the Era of Big Data

Content

We discuss the suitability of the IVOA Spectral Data Model for supporting common science use cases involving 1-D spectra and Spectral Energy Distributions (SEDs). We will describe our experiences in using this data model for spectra from Spitzer, SOFIA, and Herschel; and for SEDs from NED. We recommend some updates to the model based on this experience. We also present some science use cases that may strain the capabilities of the Simple Spectral Access protocol, including usage of “Big Spectra” data sets from e.g. Euclid and SPHEREx. Finally, we strongly advocate for the prioritization of work on the Spectral Data Model and spectral access in light of upcoming missions.

Preferred talk time

9am-5pm PDT

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Track Classification: Data Access Layer; Data Model

Submitted by **Dr DESAI, Vandana** on **Wednesday 12 May 2021**