THE JPL MILLIMETER AND SUBMILLIMETER SPECTRAL LINE CATALOG

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A makeover of the JPL Millimeter and Submillimeter Spectral Line Catalog has begun. This process is intended to provide 'single-line-access' to users and virtual astronomy facilities through a server/query interface. In order to provide these users with the maximum amount of reliability and trace-ability, the database format (traditionally ascii-text files on an http/ftp server) has been expanded to include data and data-sources in a format where the measurement data is listed independently of the model predicted line information. This information, although still accessible through the source text-files, is also compiled into a MySQL database. This methodology allows merging of measurement and prediction to be done at the meta-data level and gives the user quick access to the literature source. The creation of virtual observatories will give the astronomer a new interface tool, that, without this improved access, would otherwise be blind to much of the source information that has traditionally been kept in documentary files intended for human processing. As the users develop their model(s) to understand real astrophysical data, the virtual observatory, with open online database access, will fill the role of analysis tool, or perhaps provide input to it, and these format changes will allow the astrometric tools to track the catalog's sources/updates.