SPLATALOGUE: DATABASE FOR ASTRONOMICAL SPECTROSCOPY

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The next generation of powerful radio and millimeter/submillimeter observatories (e.g. EVLA, ALMA, & Herschel) require extensive resources to help identify spectral line transitions. We describe the compilation of the most complete spectral line database currently assembled for this purpose. The Splatalogue is a comprehensive transition-resolved compilation of observed, measured and calculated spectral lines. In addition to the JPL and CDMS spectral line lists, 229,221 new/updated lines from the Spectral Line Atlas of Interstellar Molecules (SLAIM) were included. Of that, 12,332 lines (or an addition of $\sim$2000 lines) were added to the Lovas/NIST Recommended Rest Frequencies of known astronomical transitions. To these added lines, we have run diagnostics on the 4 lists for overlaps on transitions, frequencies, formulae and chemical names and have come up with a common way to display and designate each individual species. Splatalogue also contains atomic and recombination lines, template spectra, and is completely VO-compliant, queryable under the IVOA SLAP standard. In this presentation, I will describe the latest status of the database and a short demonstration of its capabilities which can be accessed at: www.splatalogue.net.