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A new community hub for collecting resonance ionization schemes and associated tools

The "RILIS database", established in 2011, has served as a central hub for resonance ionization schemes for the laser spectroscopy community. Recently, data protection has required us to move it behind CERN's single sign-on, hampering community access. To re-establish a database accessible to all, we have created a new website and community hub [1] to share collected resonance ionization schemes. The database will, in its first version, consist of the previous CERN RILIS database entries and additional schemes from our individual collections. To simplify scheme searching, an overview of the periodic table with clickable element names and overview pages for each element of interest are provided.
The website is hosted on GitHub pages, making it possible for everyone to contribute in a simple and streamlined manner. When new scheme files are added, the page is automatically built and deployed via GitHub Actions [2] using the MkDocs framework [3] and our own Python routines. Database files are stored in an easy-to-read json [4] format, simplifying creation of new schemes. Resonance ionization schemes are automatically drawn using the RIMSSchemeDrawer software [5], generating a unified look which can be used for publications and presentations. Administrator approval ensures that submissions are checked before publication on the website.

The new website will serve as a community hub for laser resonance ionization schemes and associated tools (e.g. Doppler-broadening effects, frequency mixing angles, ⋯). Tools can, for example, be bound into the site using web-applets, or can be linked to directly from the site. The project is intended to be a community-driven effort and will thus rely on input from all laser spectroscopists. The simple interface combined with tooling hosted on GitHub provides ample room for growth. We are looking forward to your ideas, contributions, etc.

References:
[1] https://rims-code.github.io
[2] https://docs.github.com/en/actions
[3] https://www.mkdocs.org/
[4] https://en.wikipedia.org/wiki/JSON
[5] https://github.com/RIMS-Code/RIMSSchemeDrawer

Author: TRAPPITSCH, Reto (EPFL)

Co-authors: AGGARWAL, Anmol (Delhi Technological University (IN)); CHRYSALIDIS, Katerina (CERN); LE, Line; AU, Mia; HEINKE, Reinhard (CERN); ROTHE, Sebastian (CERN)

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