# An Atomic Database at Queen's University Belfast

P. Farrell,[1] F.P. Keenan,[1] R. Ryans,[1]

[1] *Queen's University, Belfast, N. Ireland*

*pfarrell04@qub.ac.uk*

*Domain* : Storage, retrieval and manipulation of atomic data

We are developing an open-source, interactive atomic physics database system, called the Queen's University Interactive Database (QUID). Data covered by QUID will include energy levels, line wavelengths, radiative rates (and hence corresponding oscillator strengths and line strengths), excitation cross sections and excitation rates. Users will be able to search for data over a wide range of parameters, including element and ionisation stage, atomic configuration, energy range, wavelength range and isoelectronic sequence. Interpolation and extrapolation of data will also be available.

QUID has been designed to accept datasets from outside Queen's University via an online submission procedure. Additional features include a user forum in which members can discuss future developments, as well as the ability for users to leave comments and peer-review other users' work, thereby creating an 'eBay' style score for each submitted item. The software itself is to be made readily available, along with the development documentation, for all parties interested in deploying QUID at their institute.