Subject: quantum visualizations using IDL
Posted by Rob.Dimeo on Sat, 08 Nov 2008 14:01:41 GMT

I recently finished documenting some IDL procedures and functions that
calculate solutions to the Schrodinger equation of quantum mechanics
for a number of different situations (e.g. for different potentials,
in one and two dimensions, time-independent, time-dependent). For
those of you in attendance at the IDL Users' Group meeting in Boulder
a few weeks ago, I demonstrated a number of these programs during my
presentation. Since a few of you at the meeting expressed interest in
the code and documentation, you can find it at the following URL:

http://www.ncnr.nist.gov/staff/dimeo/qvis/sqvis_index.html

The code can be downloaded as a zip file and the documentation is a
PDF document.

Note that the documentation is geared to individuals with some
knowledge of QM but (I hope that) the code is easy enough to run to
see the animations. The code was written to create visual
demonstrations of quantum phenomena to non-experts visiting our
facility but the documentation is *not* geared to non-experts.

Comments are, of course, welcome.