

## **JUSTIPEN EXIT REPORT**

**Mario Stoitsov**

### **JUSTIPEN-EFES-HOKKAIDO-UNEDF WORKSHOP**

**Onuma-Park, Hokkaido, Japan**

**July 20-25, 2008**

At the Hokkaido Workshop I have presented recent advances in the large-scale self-consistent mass table calculations related to the the SciDAC project UNEDF. Calculations have been performed on the Cray/X4 parallel computer Jaguar at ORNL using the HFBTHO code and standard energy density functionals.

On a demonstration session at the Workshop I have also presented two newly developed visualization tools developed under the SciDAC project UNEDF:

- MassTableExplorer - a java application aimed to facilitate the visualization of the huge array of data coming from modern multiprocessors computers helping to understand challenging phenomena seen across the nuclear mass chart
- WebMassExplorer - a web-based application available online at [MassExplorer.org](http://MassExplorer.org) - designed to help the online visualization and comparison of mass table data obtained by large-scale mass table calculations performed in the framework of nuclear density functional theory

Possibility for a collaborative work on improving nuclear density functionals by including isospin-dependent component in the pairing interaction has been discussed with H. Sagawa (Aizu) and M. Yamagami (RIKEN).

I would like to thank the organizers of the Workshop and JUSTIPEN for the exceptional hospitality, the good organization, and the relevant selection of topics, and presentations.