GALPROP WebRun

galprop.stanford.edu

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for the GALPROP development team

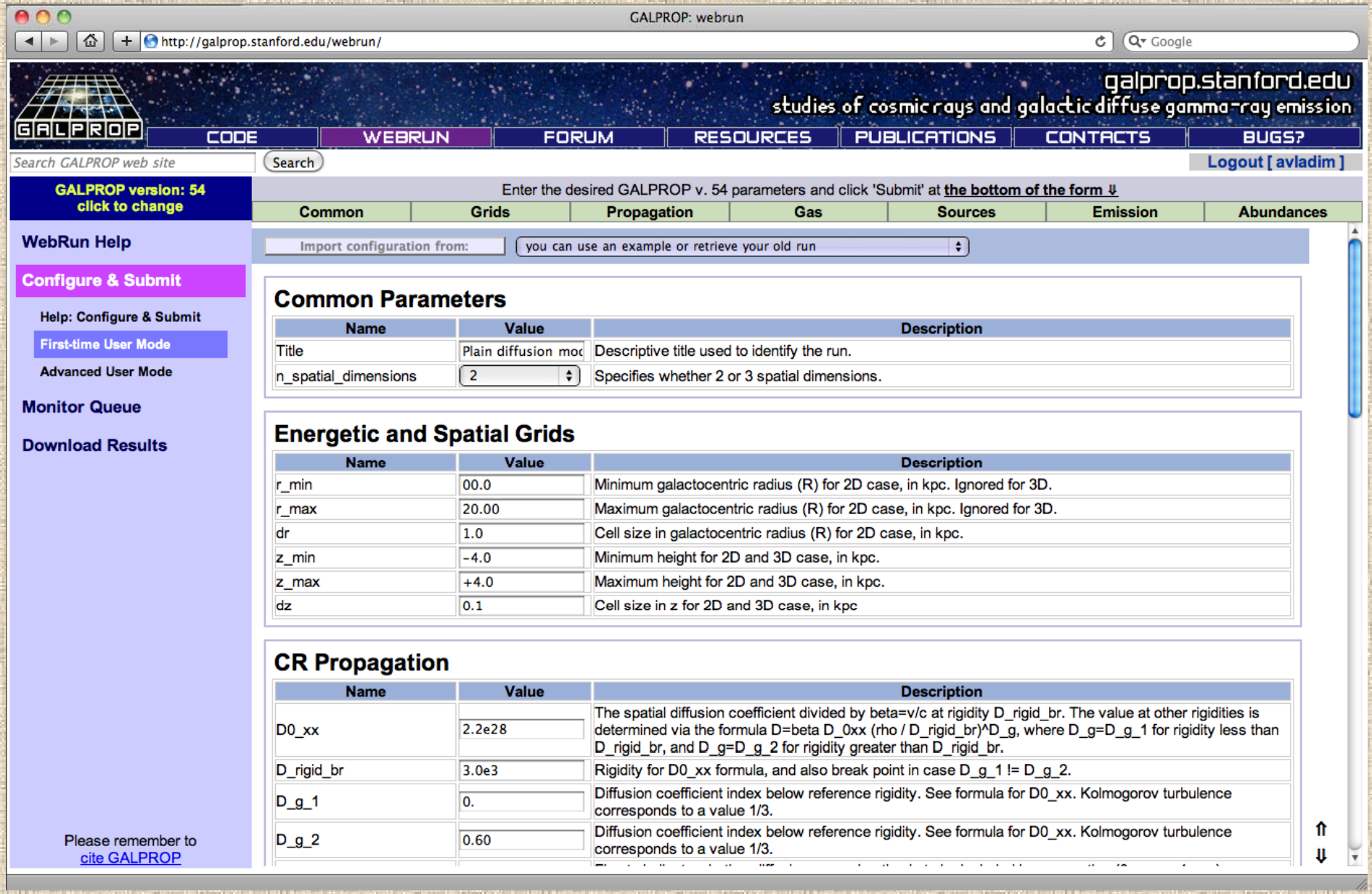
What's new in v.54

- Shared-memory parallel support with OpenMP: multi-processor machines
- Memory usage optimization
- HEALPix output of γ-ray and synchrotron skymaps
- MapCube output for compatibility with Fermi-LAT Science Tools software
- γ-ray skymaps output in Galactocentric rings to facilitate spatial analysis of the Galactic diffuse γ-ray emission
- More accurate line-of-sight integration for computing diffuse emission skymaps
- 3D modeling of the Galactic magnetic field, both regular and random components
- Calculations of synchrotron skymaps, using both regular and random magnetic fields
- New improved gas maps, which are computed using recent H I and CO surveys
- A new calculation of the Galactic interstellar radiation field using the FRaNKIE code
- Increased efficiency of anisotropic inverse Compton scattering calculations
- GALPROP code is compiled to a library for easy linking with other codes (e.g., DarkSUSY, SuperBayeS
- Improved configuration management via the GNU autotools. Multiple *NIX system and compiler targets (gcc, intel, llvm, open64) are supported

GALPROP WebRun

- GALPROP WebRun is a service that allows to run GALPROP via the WWW
- No local installation of the code or related libraries is necessary, only a web browser is required
- Available at http://galprop.stanford.edu/webrun
- Calculations can be performed on a new cluster at Stanford University, using the most recent GALPROP v54, older versions are also available
- The service is free and open to the community. Registration is required
- Acknowledge by citing the web-page and the introduction paper http://arxiv.org/abs/1008.3642 (submitted to Computer Physics Communications)

Configuring GALPROP via WebRun



- Interactive interface for parameter entry
- Parameters are validated to avoid misconfgured runs