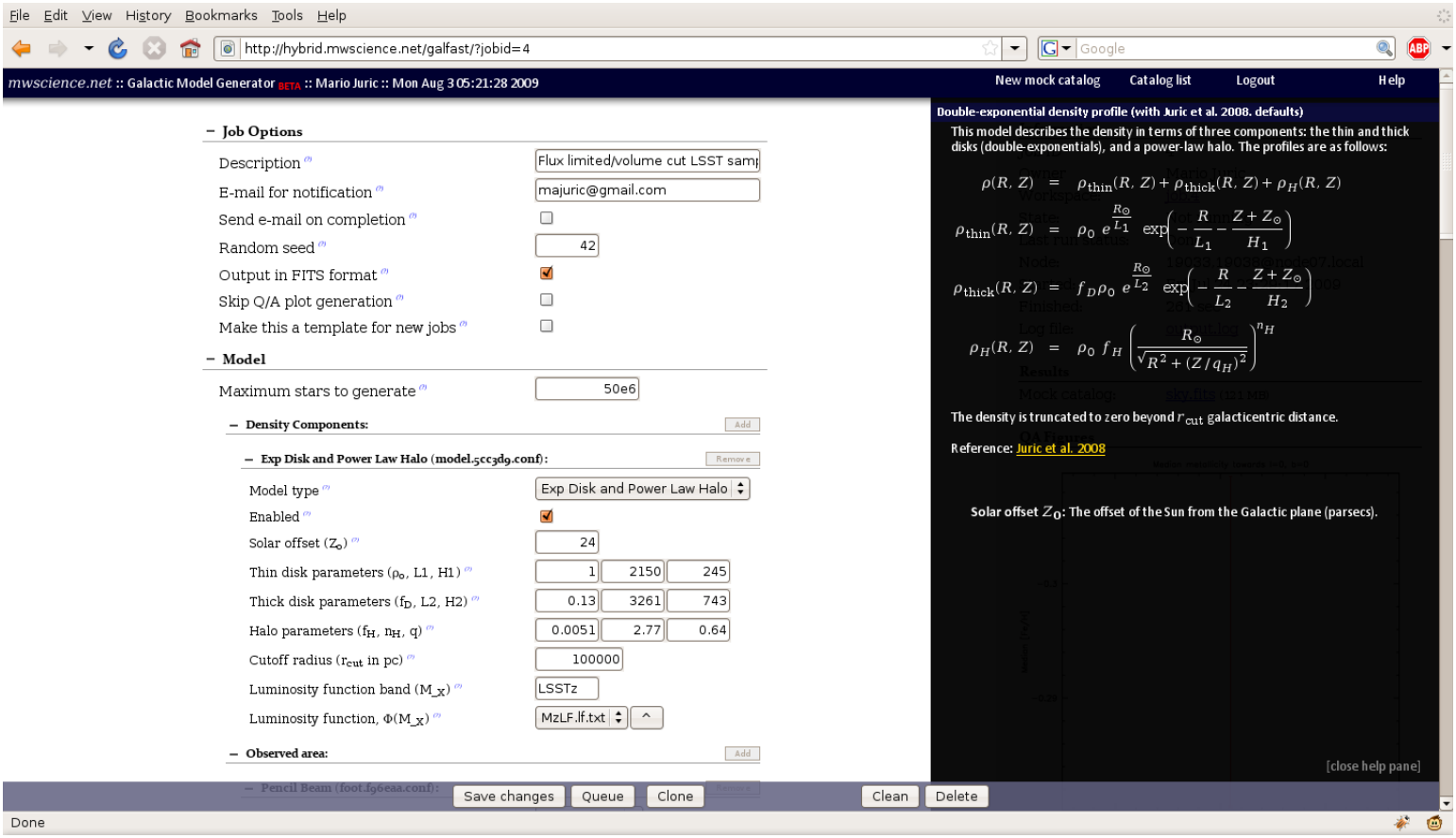
File Edit View History Bookmarks Tools Help
http://hybrid.mwscience.net/galfast/?jobid=4
Google
mwscience.net :: Galactic Model Generator BETA :: Mario Juric :: Mon Aug 3 05:21:28 2009
New mock catalog
Catalog list
Logout
Help
Job Options
Description
Flux limited/volume cut LSST samp
E-mail for notification
majuric@gmail.com
Send e-mail on completion
Random seed
42
Output in FITS format
Skip Q/A plot generation
Make this a template for new jobs
Model
Maximum stars to generate
50e6
Density Components:
Add
Exp Disk and Power Law Halo (model.5cc3d9.conf):
Remove
Model type
Exp Disk and Power Law Halo
Enabled
Solar offset (Z_o)
24
Thin disk parameters (ρ_o, L1, H1)
1
2150
245
Thick disk parameters (f_D, L2, H2)
0.13
3261
743
Halo parameters (f_H, n_H, q)
0.0051
2.77
0.64
Cutoff radius (r_{cut} in pc)
100000
Luminosity function band (M_x)
LSSTz
Luminosity function, Φ(M_x)
MzLF.lf.txt
Observed area:
Add
Pencil Beam (foot.f96eaa.conf):
Remove
Save changes
Queue
Clone
Clean
Delete
Done
Double-exponential density profile (with Juric et al. 2008. defaults)
This model describes the density in terms of three components: the thin and thick disks (double-exponentials), and a power-law halo. The profiles are as follows:
$\rho(R, Z) = \rho_{\rm thin}(R, Z) + \rho_{\rm thick}(R, Z) + \rho_H(R, Z)$
$\rho_{\rm thin}(R, Z) = \rho_0\, e^{\frac{R_\odot}{L_1}}\, \exp\left(-\frac{R}{L_1} - \frac{Z+Z_\odot}{H_1}\right)$
$\rho_{\rm thick}(R, Z) = f_D \rho_0\, e^{\frac{R_\odot}{L_2}}\, \exp\left(-\frac{R}{L_2} - \frac{Z+Z_\odot}{H_2}\right)$
$\rho_H(R, Z) = \rho_0\, f_H \left(\frac{R_\odot}{\sqrt{R^2 + (Z/q_H)^2}}\right)^{n_H}$
The density is truncated to zero beyond r_{cut} galacticentric distance.
Reference: Juric et al. 2008
Solar offset Z_0: The offset of the Sun from the Galactic plane (parsecs).
[close help pane]