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Chapter 1

Documentation

13.02.2012 Deleted some jobs I started yesterday because they had artificial crosses or were practically unconstrained
Third simulation `fuenfincr256_1` ran through - Galacticus restart worked well!
Note: IC with same seed but higher resolution do not yield the same simulation! *rightarrow* started two more test runs from r128 sims to doublecheck

12.02.2012 Updated Galacticus to revision 707 as suggested by Andrew and added parameter `hotHaloOutflowAngularMomentumAlwaysGrows` to xml file.
Two of four simulations ran through (copied hdf5 to transfer), two crashed *rightarrow* try to continue at saved states!

10.02.2012 wrote E-Mail to Andrew about performance problems and wavelenght computation error in `fuenfincr256_1`
started some runs with higher central delta and broader smoothing lenghts, i.e. 32/dx and 100/dx; all 128 resolution except second last one (same seed!):

83492	0.60500	d31c_1_st	harre	r	02/10/2012	15:19:56	intel.q@astro18	16
83493	0.60500	d31c_2_st	harre	r	02/10/2012	15:20:37	intel.q@astro29	16
83494	0.60500	d31c_3_st	harre	r	02/10/2012	15:21:17	intel.q@astro25	16
83495	0.60500	d51c_s1100	harre	r	02/10/2012	15:23:21	intel.q@astro31	16
83496	0.54786	d3+3c_s150	harre	r	02/10/2012	15:37:13	intel.q@astro12	16
83497	0.60500	d3+3c_s150	harre	r	02/10/2012	15:39:16	intel.q@astro30	32
83498	0.60500	d15+3c_s15	harre	r	02/10/2012	15:44:23	intel.q@astro30	16

09.02.2012 `drd5_r256` last written to hdf5 file feb 09, 05:07
`fuenfincr256_2` last written to hdf5 file feb 06, 03:28
`drd5_r256_2` last written to hdf5 file feb 07, 00:50

- 02.02.2012 drdx_h100_128_1 run has again severe consistency metric problem
→ not clear why
upper python script does not work, was commented out again
plan: **move to python scripts in general in order to have easier arithmetic calculations**
plan: create new folder structure and remove old simulations → done
- 31.01.2012 note: h=70.3 in galacticus xml input file is expected, consistent tree obviously implies it
→ fixed: changed in markus parameter file for the converter and in xml file
→ question: why not read out?
→ python updateGalacticusStart.py from Markus
- 30.01.2012 new consistenttree with vmax=20

Chapter 2

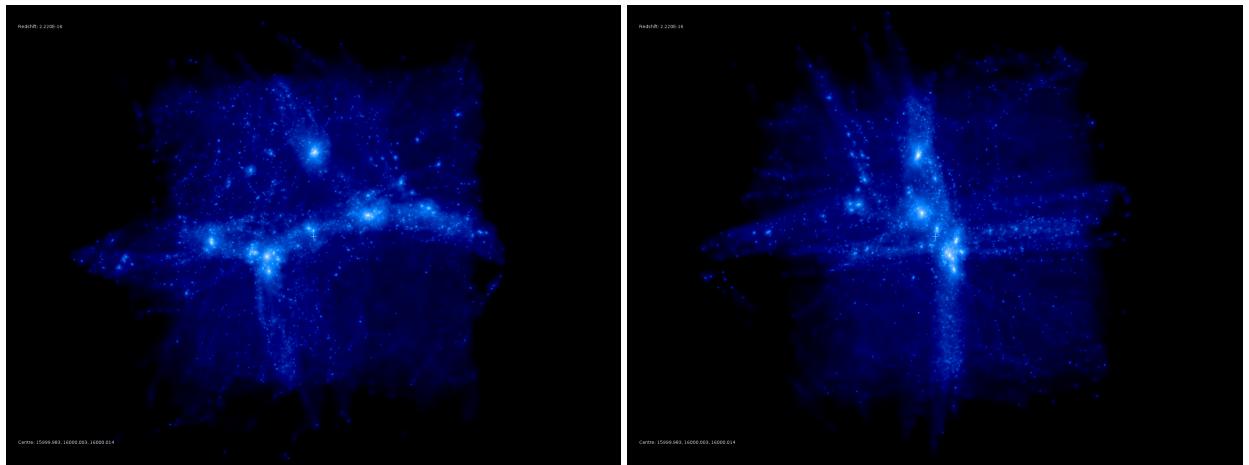
Simulations

2.1 r128

2.1.1 h70

2.1.2 h100

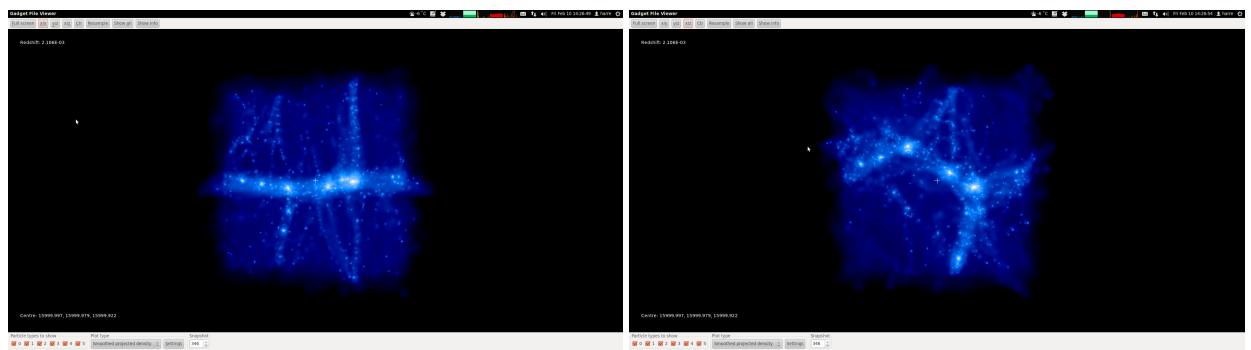
drdx_3



ROCKSTARRED ✓

pfff → Error: too few halos at scale factor 0.926072 to calculate consistency metric.

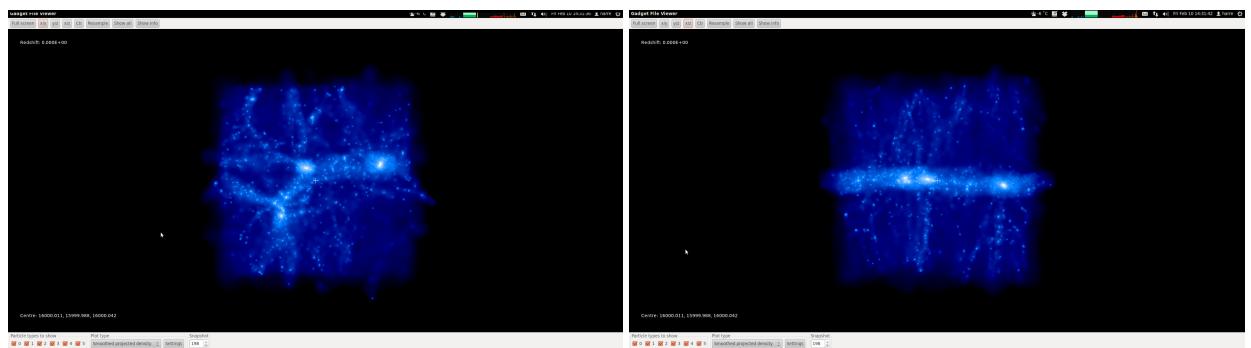
drdx_h100_r128_1



ROCKSTARRED ✓

consistenttree: too few halos at scale factor 0.896 ... → wtf?

drdx_h100_r128_2



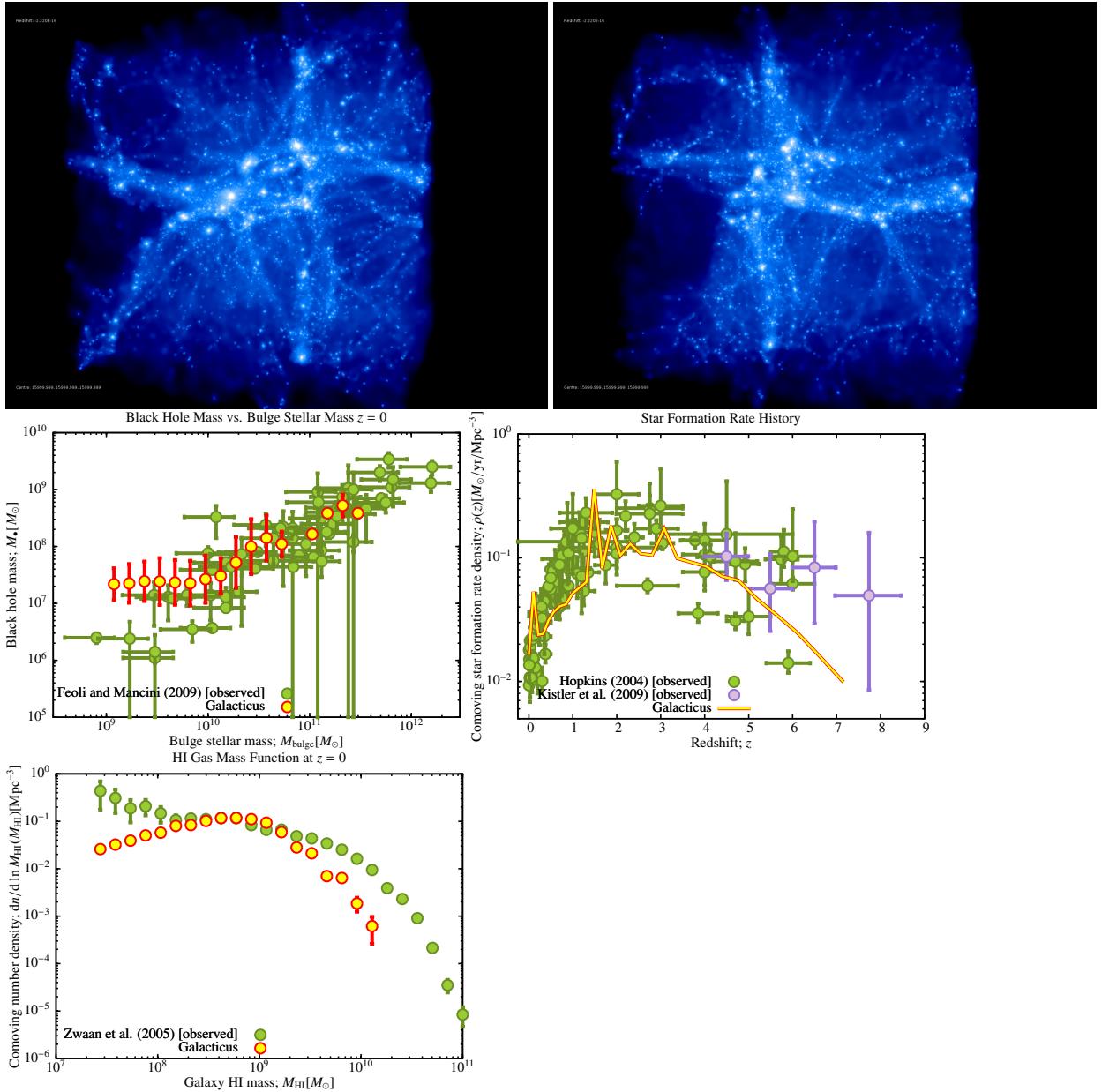
is being rockstarred

2.2 r256

2.2.1 h70

2.2.2 h100

`drd5_r256 (+)`



ROCKSTARRED ✓

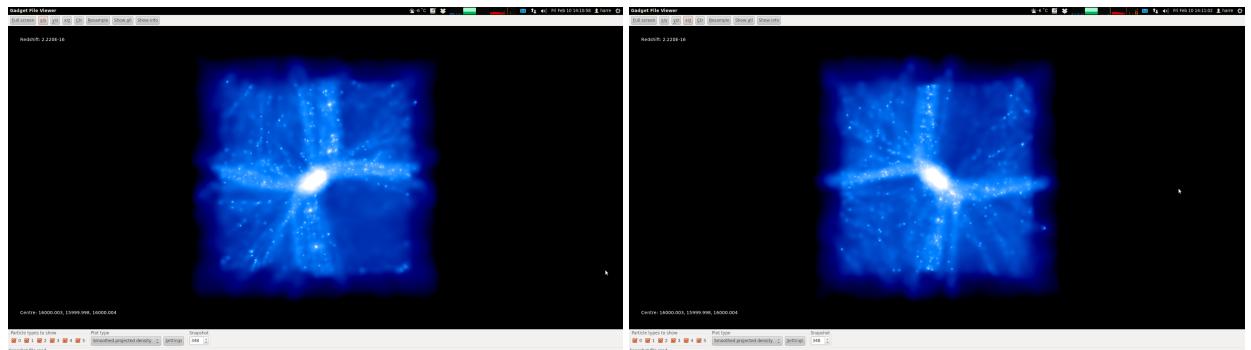
CONSISTENTTREED ✓

GALACTICUS:

```
Fatal error in Build_Descendent\_Pointers():
failed to find descendent node: 5546454 of 5522259
galacticus.sh: line 67: 25689 Aborted
```

tree copied to markus transfer
→ re-converted with bugfixed converter
galacticus running on SGE
GALACTICUSSED ✓

drd5_r256_2 → dump!



ROCKSTARRED ✓ (lasted about 9000minutes)

CONSISTENTTREE ✓

is being galacticussed → job seems to run!

no: A fatal error occurred! Backtrace for this error:

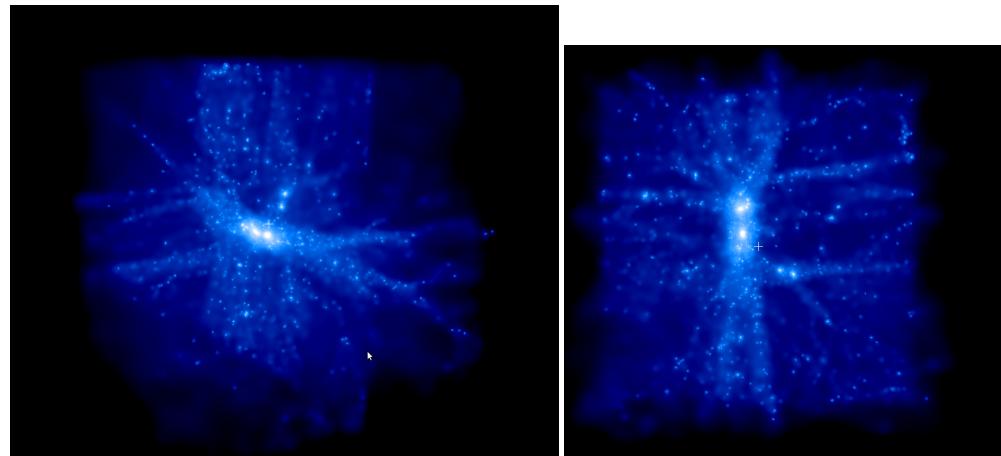
```
#0 0x2B3F2E65E897
#1 0x2B3F2E65EE4E
#2 0x301763648F
#3 0x487AA0 in __merger_tree_read_MOD_build_descendent_pointers
#4 0x48ADC3 in __merger_tree_read_MOD_merger_tree_read_do
#5 0x48205E in __merger_tree_construction_MOD_merger_tree_create
#6 0x46F469 in __galacticus_tasks_evolve_tree_MOD_galacticus_task_evolve_tree._omp_
.F90:0
#7 0x46F9C4 in __galacticus_tasks_evolve_tree_MOD_galacticus_task_evolve_tree
#8 0x46FA4F in __galacticus_tasks_MOD_galacticus_task_do
#9 0x4600E4 in MAIN__ at Galacticus.F90:0
```

→ re-converted with bugfixed converter (v0.3)

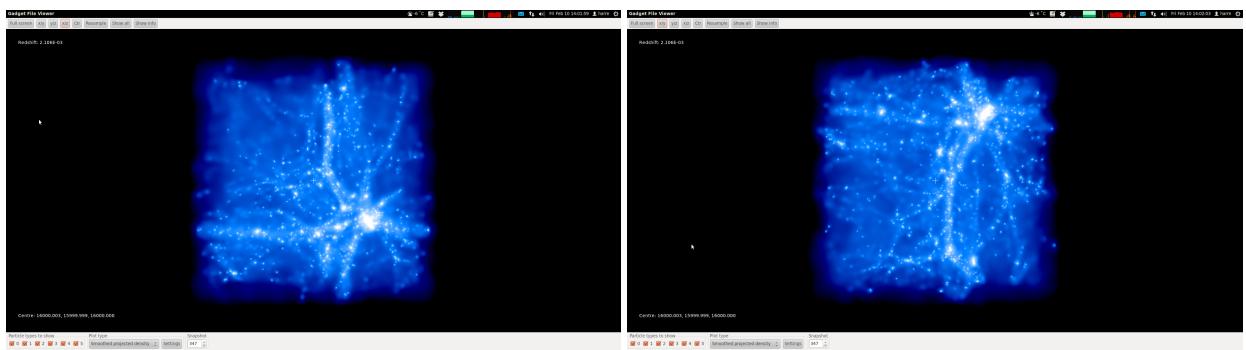
galacticus running on SGE

→ gadgetviewer: simulation has "artificial" cross → DUMP IT ?

drkltest+3c+sl50_1



is being rockstarred on astro-x4600-04

fuenfincr256_1

ROCKSTARRED ✓

CONSISTENTTREEDE ✓

GALACTICUS:

```
Fatal error in Build_Descendent_Pointers():
failed to find descendent node: 12048576 of 12014628
galacticus.sh: line 67: 5751 Aborted
```

tree copied to markus transfer

→ re-converted with bugfixed converter

Running model.....

Reading data for metallicity log10(Z/Z_Solar) = 0.198

Found 188 ages in the file

Found 1963 wavelengths in the file

gsl: ../../../../../roots/brent.c:57: ERROR: function value is not finite

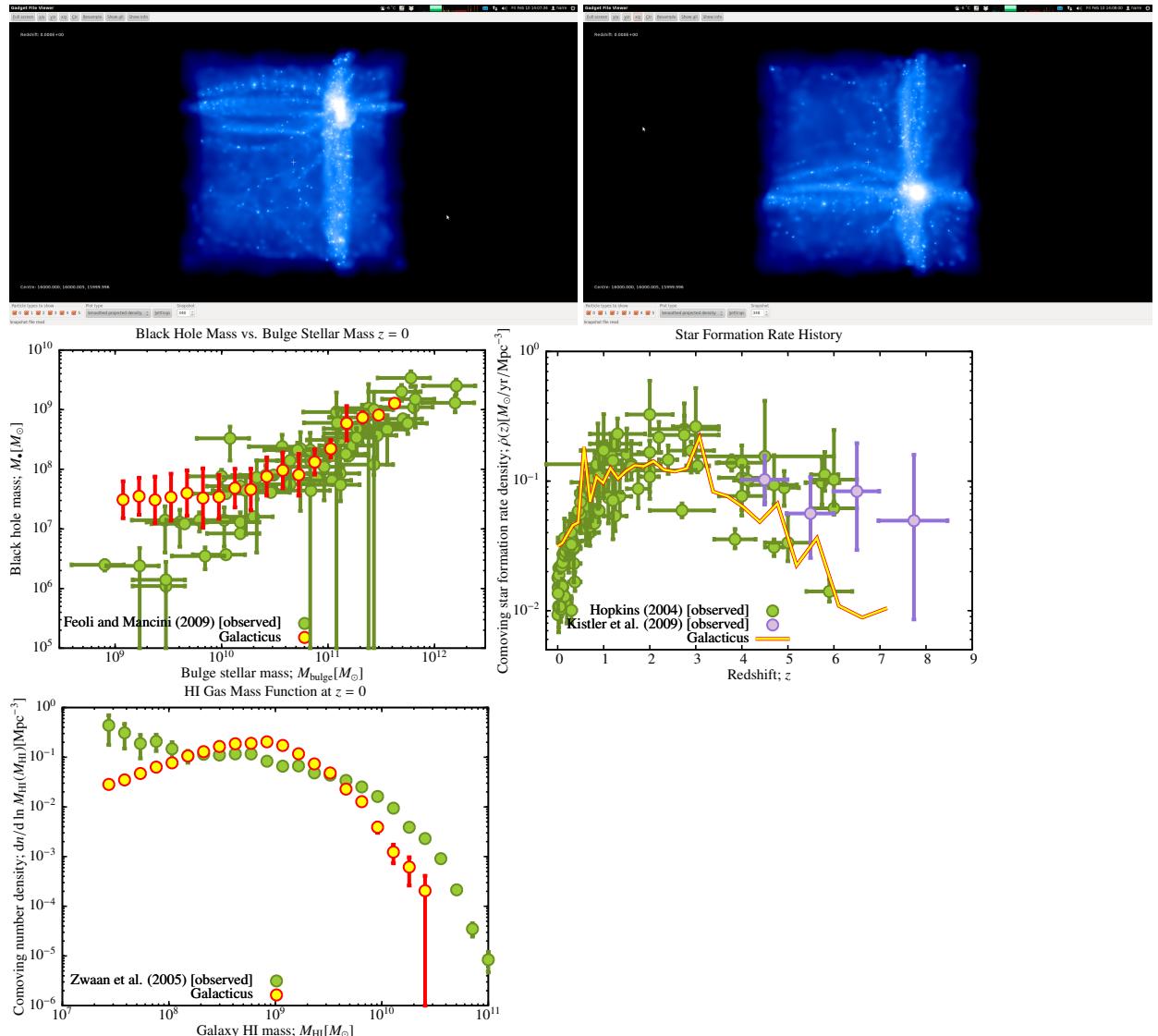
Default GSL error handler invoked.

→ E-Mail to Andrew

GALACTICUSSED ✓ BUT:

```
[3:46:48 PM CEST] Markus Haider: der fuenfincr256_1 hat a problem
[3:46:52 PM CEST] Markus Haider: der hat keine output gruppe
[3:46:58 PM CEST] Markus Haider: also keinen output
[3:47:30 PM CEST] Markus Haider: btw schon einen output
[3:47:34 PM CEST] Markus Haider: aber es scheint was zu fehlen
```

fuenfincr256_2 → dump!



ROCKSTARRED ✓ (lasted about 9000minutes)

CONSISTENTTREED ✓

is being galacticussed → job seems to run!

GALACTICUS:

```
Fatal error in Build_Descendent_Pointers():
failed to find descendent node
```

→ re-converted with bugfixed converter (v0.3)

galacticus running on SGE → gadgetviewer: simulation has "artificial" cross
on right upper corner → DUMP IT ?

GALACTICUSSED ✓