3.3.15.1 : MRscPlanck1 & MRIIscPlanck1

The database Henriques2015a contains two tables with catalogues of galaxy merger trees produced by running the semi-analytic code L-Galaxies as described in Henriques et al. 2015, on the PLANCK halo merger trees stored in the MPAHaloTrees database. A full description of the galaxy formation model used to produce these catalogues, as well as download links for all predictions and combined observational data plotted in the paper can be found here.

The catalogues now contain emission in 20 photometric bands and full star formation and metalliticy histories in logarithmic bins which can be used to compute galaxy emission in additional photometric bands or to serve as input for SED fiting codes. The time structure of these bins is kept on separate tables: SFH_Times_MR & SFH_Times_MRII. The binning method, as well as pratical examples, are described in Shamshiri et al. 2015. Soon we also plan on making available full spectra, computed from such star formation histories, for a representative subset of galaxies.

The tables all have the same columns shown below. The many different "id"-columns implement pointers that allow one to traverse the merging trees in different ways. For an explanation of how merger trees are represented in these tables see this page.

column	type	UCD	unit	description
galaxyId	bigint	meta.id;meta.main		The unique identifier of this galaxy. Built from the topologically sorted merger tree as described in TBD
haloId	bigint	meta.id.parent		The haloId of the subhalo (in the halo table with the same name in MPAHaloTrees) containing this galaxy. TBD add link to more detailed explanation
firstProgenitorId	bigint	meta.id.assoc		galaxyId of the first progenitor of this galaxy. Strictly galaxyId+1 iff lastProgenitorId > galaxyId, else -1. TBD add link to more detailed explanation
nextProgenitorId	bigint	meta.id.assoc		galaxyId of next progenitor of this galaxy in the linked list structure used to facilitate traversing trees in code. TBD add link to more detailed explanation
lastProgenitorGalId	bigint	meta.id.assoc		The galaxyId of the last progenitor of this galaxy in the topological ordering used to assign galaxyId-s as described in this page.
fofCentralId	bigint	meta.id.assoc		The galaxy id of the central galaxy of the FOF group this galaxy is in.
treeId	bigint	meta.id.parent		Unique id of galaxy formation tree containing this galaxy. Note that this treeId does not identify merger trees but the larger structures defining galaxy formation units. The following equalities hold: For MR and mMR: treeId = 1000000*floor(galaxyId/1000000). For MRII and mMRII: treeId = 1000000000*floor(galaxyId/1000000000)
descendantId	bigint	meta.id.assoc		galaxyId of the descendant of this galaxy in its merger tree.

Name	Type	UCD	Units	Description
mainLeafId	bigint	meta.id.assoc		galaxyId of the leaf on the main branch this galaxy is part of. Obtained by following firstProgenitorId as far as it goes.
treeRootId	bigint	meta.id.assoc		The galaxyId of the galaxy at the root of the merger tree this galaxy is in. Especially useful for speeding up queries for descendants for a given progenitor. See TBD for an example.
subHaloId	bigint	meta.id		Id of the subhalo containing this galaxy, as given by the column `subhaloFileID` in the `MillenniumII..SubHalo`, `miniMilII..SubHalo` table (for MRII and mMRII), and by the column `subhaloId` in the `MField.FOFSubHalo`, `millimil..FOFSubHalo` tables (for MR and mMR). Alternative to haloId.
fofSubHaloId	bigint	meta.id.assoc		The subhaloId resp. subhaloFileId (for mMR and MR resp. mMRII and MRII, see documentation of subhaloId column in this table) of the subhalo at the center of the FOF group containing this galaxy.
phKey	int			The Peano-Hilbert index of the cell this galaxy is in, in the 256^3 grid stored in MField...MField (for Millennium, not yet available for Millennium-II). Or, for mMR, the 8^3 density field in millimil..MMField
redshift	real	time		The redshift corresponding to the snapnum (in MField..Snapshots for mMR and MR, MillenniumII..Snapshots for MRII and mMRII) for this galaxy.
type	int	src.class		Type indicating whether galaxy is at the center of the FOF group (type=0), at center of the subhalo that is not at the center of its FOF gorup (type=1), or is a setellite that has lost its subhalo (type=2).
snapnum	int	time		The snapshot number where this galaxy was identified. This column is a foreign key to the snapnum column in the table in the Snapshots database with the same name as current Henriques2015a galaxies table. I.e. `Snapshots..MRscPlanck1` or `Snapshots..MRIIscPlanck1`
lookBackTime	real	time	yr	The look back time (in years) from z=0 to the redshift of the galaxy.
centralMvir	real	phys.veloc.dispersion	10^{10} M_{sun}/h	The virial mass (as defined by m_crit200) of the FOF group the galaxy resides in.
centralRvir	real	phys.veloc.dispersion	Mpc/h	The virial radius (as defined by r_crit200) of the FOF group the galaxy resides in.
distanceToCentralGalX	real	phys.size.radius	Mpc/h	X-component of the distance between this galaxy and the galaxy at the centre of the FoF group.
distanceToCentralGalY	real	phys.size.radius	Mpc/h	Y-component of the distance between this galaxy and the galaxy at the centre of the FoF group.
distanceToCentralGalZ	real	phys.size.radius	Mpc/h	Z-component of the distance between this galaxy and the galaxy at the centre of the FoF group.
x	real	pos.cartesian.x	Mpc/h	X-component of position of galaxy.

y	real	pos.cartesian.y	Mpc/h	Y-component of position of galaxy.
z	real	pos.cartesian.z	Mpc/h	Z-component of position of galaxy.
velX	real	phys.veloc	km/s	X-component of velocity of galaxy.
velY	real	phys.veloc	km/s	Y-component of velocity of galaxy.
velZ	real	phys.veloc	km/s	Z-component of velocity of galaxy.
np	int	meta.number		Number of particles of the subhalo this galaxy is in.
mvir	real	phys.mass	10^{10} M_{sun}/h	Virial mass (as defined by m_crit200) of the FOF group this galaxy was in when last it was a type 0 galaxy. I.e. current mass for type 0 galaxies, "infall virial mass" for type 1,2 galaxies.
rvir	real	phys.size.radius	Mpc/h	Virial radius (as defined by r_crit200) of the FOF group this galaxy was in when last it was a type 0 galaxy. I.e. current virial radius for type 0 galaxies, "infall virial radius" for type 1,2 galaxies
vvir	real	phys.veloc	km/s	Virial velocity of the subhalo the galaxy is/was the center of.
vmax	real	phys.veloc.rotat	km/s	Maximum rotational velocity of the subhalo of which this galaxy is the center, or the last value for satellite galaxies.
gasSpinX	real	phys.veloc.ang	Mpc/h km/s	The X-component of the spin of the cold gas disk
gasSpinY	real	phys.veloc.ang	Mpc/h km/s	The X-component of the spin of the cold gas disk
gasSpinZ	real	phys.veloc.ang	Mpc/h km/s	The X-component of the spin of the cold gas disk
stellarSpinX	real	phys.veloc.ang	Mpc/h km/s	The X-component of the spin of the stellar disk
stellarSpinY	real	phys.veloc.ang	Mpc/h km/s	The X-component of the spin of the stellar disk
stellarSpinZ	real	phys.veloc.ang	Mpc/h km/s	The X-component of the spin of the stellar disk
infallVmax	real	phys.veloc.rotat	km/s	Maximum rotational velocity of the host halo of this galaxy at `infallSnap`.
vmaxPeak	real	phys.veloc.rotat	km/s	Maximum past rotational velocity of the host halo of this galaxy.
infallSnap	int	time		Most recent (largest) snapnum at which this galaxy's `type` changed from 0 to 1 or 2
infallHotGas	real	phys.mass	10^{10} M_{sun} /h	Mass in hot gas at the time of infall (same as `hotGas` for type 0 galaxies).
hotRadius	real	phys.size.radius	Mpc/h	Radius out to which hot gas extends: rvir for type 0; 0 for type 2; maximum radius out to which hot gas is not stripped for type 1.
oriMergeTime	real	[UCD]	yr	Estimated dyniamical friction time (in years) when the merger clock is set.
mergeTime	real	[UCD]	yr	Estimated remaining merging time (in years). `oriMergeTime` - time since the merger clock is set.
coldGas	real	phys.mass	10^{10} M_{sun} /h	Mass in the cold gas disk.
stellarMass	real	phys.mass	10^{10} M_{sun} /h	Total mass in stars in the disk and the bulge

together.

bulgeMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass of stars in the bulge.
diskMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass of stars in the disk.
hotGas	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in hot gas.
ejectedMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in the ejected gas component.
blackHoleMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass of the central black hole.
icmStellarMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in intra-cluster stars
metalsColdGas	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in metals in the cold gas disk.
metalsStellarMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in metals in stars in the disk and the bulge together.
metalsBulgeMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in metals in stars in the bulge.
metalsDiskMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in metals in stars in the disk.
metalsHotGas	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in metals in hot gas.
metalsEjectedMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in metals in the ejected mass component.
metalsICMStellarMass	real	phys.mass	10^{10} M$_{sun}$ /h	Mass in metals in intra-cluster stars
primordialAccretionRate	real	phys.SFR	M$_{sun}$/yr	Accretion rate of primordial gas.
coolingRadius	real	phys.size.radius	Mpc/h	The radius within which the cooling time scale is shorter than the dynamical timescale
coolingRate	real	phys.SFR	M$_{sun}$/yr	Cooling rate
coolingRateNoAGN	real	phys.SFR	M$_{sun}$/yr	Cooling rate if there was no AGN feedback.
quasarAccretionRate	real	phys.SFR	M$_{sun}$/yr	Rate at which cold gas is accreted into the central black hole in the quasar mode.
radioAccretionRate	real	phys.SFR	M$_{sun}$/yr	Rate at which hot gas is accreted into the central black hole in the radio mode.
sfr	real	phys.SFR	M$_{sun}$/yr	Star formation rate
sfrBulge	real	phys.SFR	M$_{sun}$/yr	Star formation rate in bulge.
xrayLum	real	em.X-Ray	$\log_{10}$(erg/sec)	$\log_{10}$ of X-Ray luminosity in erg/sec
bulgeSize	real	phys.size.radius	Mpc/h	Half mass radius of bulge
stellarDiskRadius	real	phys.size.radius	Mpc/h	Size of the stellar disk, 3x the scale length.
cosInclination	real	phys.size.radius	deg	Inclination of the galaxy. Derived from the angle between the total and z-axis stellar spins of the galaxy.
disruptionOn	int			0: galaxy merged onto merger center; 1: galaxy was disrupted before merging onto its descendant, matter went into ICM of merger center
mergeOn	int			0: merger clock not set yet; 1: type 1 galaxy with baryon mass > halo mass, separate dynamical friction time calculated 2: this galaxy is type 2 and will merge into the merger center in the next snapshot 3: this galaxy is type 1 and will merge into the

			central galaxy of the main halo in the next snapshot
U_Dust	real	phot.mag;em.opt.U	Rest-frame absolute (AB) magnitude in the Johnson-Bessel U filter (lambda=0.36um) of the galaxy (dust extinction included).
B_Dust	real	phot.mag;em.opt.B	Rest-frame absolute (AB) magnitude in the Johnson-Bessel B filter (lambda=0.435um) of the galaxy (dust extinction included).
V_Dust	real	phot.mag;em.opt.V	Rest-frame absolute (AB) magnitude in the Johnson-Bessel V filter (lambda=0.55um) of the galaxy (dust extinction included).
Rc_Dust	real	phot.mag;em.opt.Rc	Rest-frame absolute (AB) magnitude in the Cousins Rc filter (lambda=0.64um) of the galaxy (dust extinction included).
Ic_Dust	real	phot.mag;em.opt.Ic	Rest-frame absolute (AB) magnitude in the Cousins Ic filter (lambda=0.79um) of the galaxy (dust extinction included).
Z_Dust	real	phot.mag;em.opt.Z	Rest-frame absolute (AB) magnitude in the VISTA Z filter (lambda=0.88um) of the galaxy (dust extinction included).
Y	real	phot.mag;em.opt.Y	Rest-frame absolute (AB) magnitude in the VISTA Y filter (lambda=1.02um) of the galaxy (dust extinction included).
J_Dust	real	phot.mag;em.opt.J	Rest-frame absolute (AB) magnitude in the VISTA/2MASS J filter (lambda=1.26um) of the galaxy (dust extinction included).
H_Dust	real	phot.mag;em.opt.H	Rest-frame absolute (AB) magnitude in the VISTA/2MASS H filter (lambda=1.60um) of the galaxy (dust extinction included).
K_Dust	real	phot.mag;em.opt.K	Rest-frame absolute (AB) magnitude in the Johnson-Bessel K (lambda=2.22um) filter of the galaxy (dust extinction included).
Ks_Dust	real	phot.mag;em.opt.Ks	Rest-frame absolute (AB) magnitude in the VISTA/2MASS Ks (lambda=2.16um) filter of the galaxy (dust extinction included).
irac36_Dust	real	phot.mag;em.opt.irac36	Rest-frame absolute (AB) magnitude in the IRAC 3.6um filter of the galaxy (dust extinction included).
irac45_Dust	real	phot.mag;em.opt.irac45	Rest-frame absolute (AB) magnitude in the IRAC 4.5um filter of the galaxy (dust extinction included).
GFUV_Dust	real	phot.mag;em.opt.GFUV	Rest-frame absolute (AB) magnitude in the GALEX FUV filter (lambda=0.148um) of the galaxy (dust extinction included).
GNUV_Dust	real	phot.mag;em.opt.GNUV	Rest-frame absolute (AB) magnitude in the GALEX NUV filter (lambda=0.219um) of the galaxy (dust extinction included).
SDSSu_Dust	real	phot.mag;em.opt.SDSS_u	Rest-frame absolute (AB) magnitude in the SDSS u filter (lambda=0.355um) of the galaxy (dust extinction included).
SDSSg_Dust	real	phot.mag;em.opt.SDSS_g	Rest-frame absolute (AB) magnitude in the SDSS g filter (lambda=0.469um) of the galaxy (dust extinction included).
SDSSr_Dust	real	phot.mag;em.opt.SDSS_r	Rest-frame absolute (AB) magnitude in the SDSS r filter (lambda=0.617um) of the galaxy (dust extinction included).

SDSSi_Dust	real	phot.mag;em.opt.SDSS_i	Rest-frame absolute (AB) magnitude in the SDSS i filter (lambda=0.748um) of the galaxy (dust extinction included).
SDSSz_Dust	real	phot.mag;em.opt.SDSS_z	Rest-frame absolute (AB) magnitude in the SDSS z filter (lambda=0.893um) of the galaxy (dust extinction included).
U_NoDust	real	phot.mag;em.opt.U	Rest-frame absolute (AB) magnitude in the Johnson-Bessel U filter (lambda=0.36um) of the galaxy (no dust extinction).
B_NoDust	real	phot.mag;em.opt.B	Rest-frame absolute (AB) magnitude in the Johnson-Bessel B filter (lambda=0.435um) of the galaxy (no dust extinction).
V_NoDust	real	phot.mag;em.opt.V	Rest-frame absolute (AB) magnitude in the Johnson-Bessel V filter (lambda=0.55um) of the galaxy (no dust extinction).
Rc_NoDust	real	phot.mag;em.opt.Rc	Rest-frame absolute (AB) magnitude in the Cousins Rc filter (lambda=0.64um) of the galaxy (no dust extinction).
Ic_NoDust	real	phot.mag;em.opt.Ic	Rest-frame absolute (AB) magnitude in the Cousins Ic filter (lambda=0.79um) of the galaxy (no dust extinction).
Z_NoDust	real	phot.mag;em.opt.Z	Rest-frame absolute (AB) magnitude in the VISTA Z filter (lambda=0.88um) of the galaxy (no dust extinction).
Y_NoDust	real	phot.mag;em.opt.Y	Rest-frame absolute (AB) magnitude in the VISTA Y filter (lambda=1.02um) of the galaxy (no dust extinction).
J_NoDust	real	phot.mag;em.opt.J	Rest-frame absolute (AB) magnitude in the VISTA/2MASS J filter (lambda=1.26um) of the galaxy (no dust extinction).
H_NoDust	real	phot.mag;em.opt.H	Rest-frame absolute (AB) magnitude in the VISTA/2MASS H filter (lambda=1.60um) of the galaxy (no dust extinction).
K_NoDust	real	phot.mag;em.opt.K	Rest-frame absolute (AB) magnitude in the Johnson-Bessel K (lambda=2.22um) filter of the galaxy (no dust extinction).
Ks_NoDust	real	phot.mag;em.opt.Ks	Rest-frame absolute (AB) magnitude in the VISTA/2MASS Ks (lambda=2.16um) filter of the galaxy (no dust extinction).
irac36_NoDust	real	phot.mag;em.opt.irac36	Rest-frame absolute (AB) magnitude in the IRAC 3.6um filter of the galaxy (no dust extinction).
irac45_NoDust	real	phot.mag;em.opt.irac45	Rest-frame absolute (AB) magnitude in the IRAC 4.5um filter of the galaxy (no dust extinction).
GFUV_NoDust	real	phot.mag;em.opt.GFUV	Rest-frame absolute (AB) magnitude in the GALEX FUV filter (lambda=0.148um) of the galaxy (no dust extinction).
GNUV_NoDust	real	phot.mag;em.opt.GNUV	Rest-frame absolute (AB) magnitude in the GALEX NUV filter (lambda=0.219um) of the galaxy (no dust extinction).
SDSSu_NoDust	real	phot.mag;em.opt.SDSS_u	Rest-frame absolute (AB) magnitude in the SDSS u filter (lambda=0.355um) of the galaxy (no dust extinction).
SDSSg_NoDust	real	phot.mag;em.opt.SDSS_g	Rest-frame absolute (AB) magnitude in the SDSS g filter (lambda=0.469um) of the galaxy (no dust extinction).

SDSSr_NoDust	real	phot.mag;em.opt.SDSS_r	Rest-frame absolute (AB) magnitude in the SDSS r filter (lambda=0.617um) of the galaxy (no dust extinction).
SDSSi_NoDust	real	phot.mag;em.opt.SDSS_i	Rest-frame absolute (AB) magnitude in the SDSS i filter (lambda=0.748um) of the galaxy (no dust extinction).
SDSSz_NoDust	real	phot.mag;em.opt.SDSS_z	Rest-frame absolute (AB) magnitude in the SDSS z filter (lambda=0.893um) of the galaxy (no dust extinction).
U_BulgeDust	real	phot.mag;em.opt.U	Rest-frame absolute (AB) magnitude in the Johnson-Bessel U filter (lambda=0.36um) of the bulge (dust extinction included).
B_BulgeDust	real	phot.mag;em.opt.B	Rest-frame absolute (AB) magnitude in the Johnson-Bessel B filter (lambda=0.435um) of the bulge (dust extinction included).
V_BulgeDust	real	phot.mag;em.opt.V	Rest-frame absolute (AB) magnitude in the Johnson-Bessel V filter (lambda=0.55um) of the bulge (dust extinction included).
Rc_BulgeDust	real	phot.mag;em.opt.Rc	Rest-frame absolute (AB) magnitude in the Cousins Rc filter (lambda=0.64um) of the bulge (dust extinction included).
Ic_BulgeDust	real	phot.mag;em.opt.Ic	Rest-frame absolute (AB) magnitude in the Cousins Ic filter (lambda=0.79um) of the bulge (dust extinction included).
Z_BulgeDust	real	phot.mag;em.opt.Z	Rest-frame absolute (AB) magnitude in the VISTA Z filter (lambda=0.88um) of the bulge (dust extinction included).
Y_BulgeDust	real	phot.mag;em.opt.Y	Rest-frame absolute (AB) magnitude in the VISTA Y filter (lambda=1.02um) of the bulge (dust extinction included).
J_BulgeDust	real	phot.mag;em.opt.J	Rest-frame absolute (AB) magnitude in the VISTA/2MASS J filter (lambda=1.26um) of the bulge (dust extinction included).
H_BulgeDust	real	phot.mag;em.opt.H	Rest-frame absolute (AB) magnitude in the VISTA/2MASS H filter (lambda=1.60um) of the bulge (dust extinction included).
K_BulgeDust	real	phot.mag;em.opt.K	Rest-frame absolute (AB) magnitude in the Johnson-Bessel K (lambda=2.22um) filter of the bulge (dust extinction included).
Ks_BulgeDust	real	phot.mag;em.opt.Ks	Rest-frame absolute (AB) magnitude in the VISTA/2MASS Ks (lambda=2.16um) filter of the bulge (dust extinction included).
irac36_BulgeDust	real	phot.mag;em.opt.irac36	Rest-frame absolute (AB) magnitude in the IRAC 3.6um filter of the bulge (dust extinction included).
irac45_BulgeDust	real	phot.mag;em.opt.irac45	Rest-frame absolute (AB) magnitude in the IRAC 4.5um filter of the bulge (dust extinction included).
GFUV_BulgeDust	real	phot.mag;em.opt.GFUV	Rest-frame absolute (AB) magnitude in the GALEX FUV filter (lambda=0.148um) of the bulge (dust extinction included).
GNUV_BulgeDust	real	phot.mag;em.opt.GNUV	Rest-frame absolute (AB) magnitude in the GALEX NUV filter (lambda=0.219um) of the bulge (dust extinction included).
SDSSu_BulgeDust	real	phot.mag;em.opt.SDSS_u	Rest-frame absolute (AB) magnitude in the SDSS u filter (lambda=0.355um) of the bulge

			(dust extinction included).
SDSSg_BulgeDust	real	phot.mag;em.opt.SDSS_g	Rest-frame absolute (AB) magnitude in the SDSS g filter (lambda=0.469um) of the bulge (dust extinction included).
SDSSr_BulgeDust	real	phot.mag;em.opt.SDSS_r	Rest-frame absolute (AB) magnitude in the SDSS r filter (lambda=0.617um) of the bulge (dust extinction included).
SDSSi_BulgeDust	real	phot.mag;em.opt.SDSS_i	Rest-frame absolute (AB) magnitude in the SDSS i filter (lambda=0.748um) of the bulge (dust extinction included).
SDSSz_BulgeDust	real	phot.mag;em.opt.SDSS_z	Rest-frame absolute (AB) magnitude in the SDSS z filter (lambda=0.893um) of the bulge (dust extinction included).
U_ICLDust	real	phot.mag;em.opt.U	Rest-frame absolute (AB) magnitude in the Johnson-Bessel U filter (lambda=0.36um) of intra-cluster stars (dust extinction included).
B_ICLDust	real	phot.mag;em.opt.B	Rest-frame absolute (AB) magnitude in the Johnson-Bessel B filter (lambda=0.435um) of intra-cluster stars (dust extinction included).
V_ICLDust	real	phot.mag;em.opt.V	Rest-frame absolute (AB) magnitude in the Johnson-Bessel V filter (lambda=0.55um) of intra-cluster stars (dust extinction included).
Rc_ICLDust	real	phot.mag;em.opt.Rc	Rest-frame absolute (AB) magnitude in the Cousins Rc filter (lambda=0.64um) of intra-cluster stars (dust extinction included).
Ic_ICLDust	real	phot.mag;em.opt.Ic	Rest-frame absolute (AB) magnitude in the Cousins Ic filter (lambda=0.79um) of intra-cluster stars (dust extinction included).
Z_ICLDust	real	phot.mag;em.opt.Z	Rest-frame absolute (AB) magnitude in the VISTA Z filter (lambda=0.88um) of intra-cluster stars (dust extinction included).
Y_ICLDust	real	phot.mag;em.opt.Y	Rest-frame absolute (AB) magnitude in the VISTA Y filter (lambda=1.02um) of intra-cluster stars (dust extinction included).
J_ICLDust	real	phot.mag;em.opt.J	Rest-frame absolute (AB) magnitude in the VISTA/2MASS J filter (lambda=1.26um) of intra-cluster stars (dust extinction included).
H_ICLDust	real	phot.mag;em.opt.H	Rest-frame absolute (AB) magnitude in the VISTA/2MASS H filter (lambda=1.60um) of intra-cluster stars (dust extinction included).
K_ICLDust	real	phot.mag;em.opt.K	Rest-frame absolute (AB) magnitude in the Johnson-Bessel K (lambda=2.22um) filter of intra-cluster stars (dust extinction included).
Ks_ICLDust	real	phot.mag;em.opt.Ks	Rest-frame absolute (AB) magnitude in the VISTA/2MASS Ks (lambda=2.16um) filter of intra-cluster stars (dust extinction included).
irac36_ICLDust	real	phot.mag;em.opt.irac36	Rest-frame absolute (AB) magnitude in the IRAC 3.6um filter of intra-cluster stars (dust extinction included).
irac45_ICLDust	real	phot.mag;em.opt.irac45	Rest-frame absolute (AB) magnitude in the IRAC 4.5um filter of intra-cluster stars (dust extinction included).
GFUV_ICLDust	real	phot.mag;em.opt.GFUV	Rest-frame absolute (AB) magnitude in the GALEX FUV filter (lambda=0.148um) of intra-cluster stars (dust extinction included).
GNUV_ICLDust	real	phot.mag;em.opt.GNUV	Rest-frame absolute (AB) magnitude in the

				GALEX NUV filter (lambda=0.219um) of intra-cluster stars (dust extinction included).
SDSSu_ICLDust	real	phot.mag;em.opt.SDSS_u		Rest-frame absolute (AB) magnitude in the SDSS u filter (lambda=0.355um) of intra-cluster stars (dust extinction included).
SDSSg_ICLDust	real	phot.mag;em.opt.SDSS_g		Rest-frame absolute (AB) magnitude in the SDSS g filter (lambda=0.469um) of intra-cluster stars (dust extinction included).
SDSSr_ICLDust	real	phot.mag;em.opt.SDSS_r		Rest-frame absolute (AB) magnitude in the SDSS r filter (lambda=0.617um) of intra-cluster stars (dust extinction included).
SDSSi_ICLDust	real	phot.mag;em.opt.SDSS_i		Rest-frame absolute (AB) magnitude in the SDSS i filter (lambda=0.748um) of intra-cluster stars (dust extinction included).
SDSSz_ICLDust	real	phot.mag;em.opt.SDSS_z		Rest-frame absolute (AB) magnitude in the SDSS z filter (lambda=0.893um) of intra-cluster stars (dust extinction included).
massWeightedAge	real	time.age	10^9yr	The age of this galaxy, weighted by mass of its components.
rbandWeightedAge	real	time.age	10^9yr	The age of this galaxy, weighted by mass of its components.
sfh_ibin	int	time.age		Index of the higest star formation history bin currently in use.
sfh_numbins	int	time.age		Number of non-empty star formation history bins.
sfh_DiskMass_i [i=1..20]	real	time.age	10^{10} M_{sun} /h	Bin[i of 20] for star formation history in the disk.
sfh_BulgeMass_i [i=1..20]	real	time.age	10^{10} M_{sun} /h	Bin[i of 20] for star formation history in the bulge.
sfh_ICMStellarMass_i [i=1..20]	real	time.age	10^{10} M_{sun} /h	Bin[i of 20] for star formation history in intra-cluster stars.
sfh_MetalsDiskMass_i [i=1..20]	real	time.age	10^{10} M_{sun} /h	Bin[i of 20] for metal formation history in the disk.
sfh_MetalsBulgeMass_i [i=1..20]	real	time.age	10^{10} M_{sun} /h	Bin[i of 20] for metal formation history in the bulge.
sfh_MetasICMStellarMass_i [i=1..20]	real	time.age	10^{10} M_{sun} /h	Bin[i of 20] for metal formation history in intra-cluster stars.