

Corrigenda of the PhD thesis "Diversity of Population III Star Formation" by Katharina Margaretha Johanna Wollenberg, 2019

Page (main part)	Original	Correction
12	The ionization fraction of the primordial gas finally froze out at $z \sim 700 - 800$ to a value of $x \sim 2 \times 10^4$ [...]	The ionization fraction of the primordial gas finally froze out at $z \sim 700 - 800$ to a value of $x \sim 2 \times 10^{-4}$ [...]
13	The latter solely changes with the expansion of the Universe, $\rho_0(t) = \rho_0(t)(1+z)^3$ ; [...]	The latter solely changes with the expansion of the Universe, $\rho_0(t) = \rho_0(1+z)^3$ ; [...]
13	The first term on the right-hand-side of Eq. (2.26) describes gravity [...]	The first term on the right-hand-side of Eq. (2.25) describes gravity [...]
14	Thus, Eq. (2.26) can be simplified to [...]	Thus, Eq. (2.25) can be simplified to [...]
14	We equate the two terms on the right-hand-side of Eq. (2.26) [...]	We equate the two terms on the right-hand-side of Eq. (2.25) [...]
23	[...] $\Omega(R) \sim v_{\text{Kep}}(R) \sim 9 \text{ km s}^{-1}$ [...]	[...] $\Omega(R) \sim v_{\text{K}}(R)/R \sim 9/R \text{ km s}^{-1}$ [...]
48	[...] mixed boundary conditions (von Neumann & Cauchy) [...]	[...] mixed boundary conditions (Neumann & Cauchy) [...]
53	In general definitions and definitions referring to random processes where the random variables are indexed by integers or real numbers, one usually uses the symbol $X$ .	In general, in definitions referring to random processes where the random variables are indexed by integers or real numbers, one usually uses the symbol $X$ .
129	[...] corresponding to between 15 and 30% of the total number of sinks formed.	[...] corresponding to between 15 and 40% of the total number of sinks formed.
147	The is enough for variation in the density, [...]	It is enough for variation in the density, [...]
155	[...] we realizations with 32 cells per Jeans length have both larger radial velocities [...]	[...] we find realizations with 32 cells per Jeans length have both larger radial velocities [...]
161	[...] as well as providing magnetic braking which aids the inward transport of angular momentum [...]	[...] as well as providing magnetic braking which aids the outward transport of angular momentum [...]

Equation	Original	Correction
(2.5)	$\left(\frac{\dot{a}}{a}\right) = \frac{\kappa}{3}\rho - \frac{Kc^2}{a^2} + \frac{\Lambda}{3}$	$\left(\frac{\dot{a}}{a}\right)^2 = \frac{\kappa}{3}\rho - \frac{Kc^2}{a^2} + \frac{\Lambda}{3}$
(3.35)	$M_J = \frac{4\pi}{3}\rho_0 \left(\frac{\lambda_J}{2}\right)^2$ [...]	$M_J = \frac{4\pi}{3}\rho_0 \left(\frac{\lambda_J}{2}\right)^3$ [...]
(3.59)	$p(x) = \frac{1}{2\pi\sigma^2} \exp\left(-\frac{(x-\mu)^2}{2\sigma^2}\right)$	$p(x) = \frac{1}{2\pi\sigma^2} \exp\left(-\frac{(x-\mu)^2}{2\sigma^2}\right)$

Figure	Original	Correction
2.3	Image source: <a href="http://wwwmpa.mpa-garching.mpg.de/galform/virgo/millennium/seqF_037a_half.jpg">http://wwwmpa.mpa-garching.mpg.de/galform/virgo/millennium/seqF_037a_half.jpg</a>	Image source: <a href="http://wwwmpa.mpa-garching.mpg.de/galform/virgo/millennium/seqD_063a_half.jpg">http://wwwmpa.mpa-garching.mpg.de/galform/virgo/millennium/seqD_063a_half.jpg</a>
5.1	$R \propto n^{-2.2}$	$n \propto R^{-2.2}$

8.5	Comparison of the mass accretion histories between.	Comparison of the mass accretion histories.
8.9	Left: realization $\beta 01-1$ with divB refinement. Right: realization $\alpha 025-5$ without divB refinement.	Top: realization $\beta 01-1$ with divB refinement. Bottom: realization $\alpha 025-5$ without divB refinement.
Table	Original	Correction
10.2	Snapshot output times at $\sim 50$ yr after first sink formation used for Fig. fig:vrot-later.	Snapshot output times at $\sim 50$ yr after first sink formation used for Fig. 5.14.