Errata: Approximate Air-Fluid Interactions for SPH

This is a correction to the following publication:
Christoph Gissler, Stefan Band, Andreas Peer, Markus Ihmsen, Matthias Teschner, **Approximate Air-Fluid Interactions for SPH**, In *Workshop on Virtual Reality Interaction and Physical Simulation*, The Eurographics Association, 2017.

On page 5, the calculation of the Reynolds number requires an additional factor of 2:

$$Re_i = 2\frac{\rho_a \left|\mathbf{v}_{i,\mathrm{rel}}\right| L}{\mu_a}\,.$$

On page 4 in Eq. 6, a "+1" is missing in the square root:

$$t^{\max} = -2\frac{tan^{-1}\left(\sqrt{t_d^2\omega^2+1}+t_d\omega\right)-\pi}{\omega}\,.$$

On page 5, Eqs. 7 through 8 require an additional factor of $\frac{1}{2}$ resulting in:

$$y_i^{\max} = \frac{1}{2}\frac{C_F}{C_k C_b}\, We_i \underbrace{\left(1-e^{-\frac{t^{\max}}{t_d}}\left(\cos\left(\omega t^{\max}\right)+\frac{1}{\omega t_d}\sin\left(\omega t^{\max}\right)\right)\right)}_{=:c_{\mathrm{def}}}$$

and

$$\begin{aligned} y_i^{\max} &= \frac{C_F}{2C_kC_b}\frac{\rho_a \mathbf{v}_{i,\mathrm{rel}}^2 L}{\sigma} c_{\mathrm{def}} \\ &= \mathbf{v}_{i,\mathrm{rel}}^2 \underbrace{\frac{C_F}{2C_kC_b}\frac{\rho_a L}{\sigma} c_{\mathrm{def}}}_{=:y_{\mathrm{coeff}}} \\ &= \mathbf{v}_{i,\mathrm{rel}}^2 y_{\mathrm{coeff}}\,. \end{aligned}$$