Erratum

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CFD simulation of bubble column flows: Investigations on turbulence models in RANS approach
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The color code of the figures captions follow:

FIGURE CAPTIONS

Fig. 1. Radial profiles of the liquid axial velocity in the case of the Dispersed Standard \( k-\varepsilon \) model for grid \#1, using 1\textsuperscript{st} order Upwind (•), 2\textsuperscript{nd} order Upwind (•) and 3\textsuperscript{rd} order MUSCL schemes (†). Comparison with CARPT data (•) given by Chen (2004).

Fig. 2. Radial profiles of the gas holdup in the case of the Dispersed Standard \( k-\varepsilon \) model for grid \#1, using 1\textsuperscript{st} order Upwind (•), 2\textsuperscript{nd} order Upwind (•) and 3\textsuperscript{rd} order MUSCL schemes (†). Comparison with CT data (•) given by Chen (2004).

Fig. 3. Radial profiles of the liquid axial velocity in the case of the Dispersed RNG \( k-\varepsilon \) model for grid \#1 (•), grid \#2 (•), grid \#3 (•), grid \#4 (•), grid \#5 (•), grid \#6 (•) and grid \#7 (•).

Fig. 4. Radial profiles of the gas holdup in the case of the Dispersed RNG \( k-\varepsilon \) model for grid \#1 (•), grid \#2 (•), grid \#3 (•), grid \#4 (•), grid \#5 (•), grid \#6 (•) and grid \#7 (•).
Fig. 5: Radial profiles of the liquid axial velocity in the case of the Standard $k$-$\varepsilon$ model for the Dispersed (♦), Dispersed + BIT (♦), and Per-phase (♦) options. Comparison with CARPT data (♦) given by Chen (2004).

Fig. 6. Radial profiles of the gas holdup in the case of the Standard $k$-$\varepsilon$ model for the Dispersed (♦), Dispersed + BIT (♦), and Per-phase (♦) options. Comparison with CT data (♦) given by Chen (2004).

Fig. 7. Radial profiles of the liquid axial velocity in the case of the Realizable $k$-$\varepsilon$ model for the Dispersed (♦), Dispersed + BIT (♦), and Per-phase (♦) options. Comparison with CARPT data (♦) given by Chen (2004).

Fig. 8. Radial profiles of the gas holdup in the case of the Realizable $k$-$\varepsilon$ model for the Dispersed (♦), Dispersed + BIT (♦), and Per-phase (♦) options. Comparison with CT data (♦) given by Chen (2004).

Fig. 9. Radial profiles of the liquid axial velocity in the case of the RNG $k$-$\varepsilon$ model for the Dispersed (♦), Dispersed + BIT (♦), and Per-phase (♦) options. Comparison with CARPT data (♦) given by Chen (2004).

Fig. 10. Radial profiles of the gas holdup in the case of the RNG $k$-$\varepsilon$ model for the Dispersed (♦), Dispersed + BIT (♦), and Per-phase (♦) options. Comparison with CT data (♦) given by Chen (2004).

Fig. 11. Radial profiles of instantaneous, circum- and axially-averaged turbulent kinetic energy for the Standard $k$-$\varepsilon$ model Dispersed (♦), Standard $k$-$\varepsilon$ model Per-phase (♦), Realizable $k$-$\varepsilon$ model Dispersed (♦), Realizable $k$-$\varepsilon$ model Per-phase (♦), RNG $k$-$\varepsilon$ model Dispersed (♦), RNG $k$-$\varepsilon$ model Per-phase (♦).

Fig. 12. Radial profiles of instantaneous, circum- and axially-averaged turbulent dissipation rate for the Standard $k$-$\varepsilon$ model Dispersed (♦), Standard $k$-$\varepsilon$ model Per-phase
(•), Realizable $k$-$\varepsilon$ model Dispersed (•), Realizable $k$-$\varepsilon$ model Per-phase (•), RNG $k$-$\varepsilon$ model Dispersed (•), RNG $k$-$\varepsilon$ model Per-phase (•).