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SCALE EFFECTS AFFECTING TWO-PHASE FLOW PROPERTIES IN HYDRAULIC JUMP WITH SMALL INFLOW FROUDE NUMBER

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HIGHLIGHTS

- + A comparative re-analysis of physical data was conducted for hydraulic jumps with $Fr_1 = 5.1$.
- + The Froude similarity was tested for a range of Reynolds numbers $2.5 \times 10^4 < Re < 1.3 \times 10^5$.
- + A broad range of two-phase flow parameters were tested systematically.
- + The bubble count rate data, turbulence properties, bubble chords and clustering properties cannot be up-scaled
- + The findings have some implications in terms of civil engineering designs.