Terminal Velocity vs. Bead Radius Excluding Systematic Error

Legend:
- Theoretical Scaling: $v_{term} = (2.31\pm0.09)r^2$ ($\chi^2_\nu = 1019.85$)
- Quadratic Fit: $v_{term} = (1.86\pm0.04)r^2 + (0.56\pm0.05)r$ ($\chi^2_\nu = 30.13$)
- Derived Terminal Velocities of Beads

Theoretical Scaling Residuals

Quadratic Fit Residuals

Terminal Velocity (mm/s)

Bead Radius (mm)