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Calculation of air density through measurements of falling spheres

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Abstract content
 (Max 300 words)
Formatting &
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We present experimental results from ball drop experiments to infer air density. Using a quadcopter drone to raise the ball to over 1000 ft, measurements of the velocity of the ball are made to infer the mass density. Using the measured terminal velocity enables an accurate measurement of the air density using falling spheres with known cross section and aerodynamic drag coefficient. Comparison with air density measurements using the measured meteorological parameters (temperature, pressure and humidity) will validate the results.

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Level for award
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Main supervisor (name and email)
and his / her institution

Mark Moldwin University of Michigan

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