# **Bluff-Body Turbulence**

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#### abstract here LH&FZ

#### **Nomenclature**

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 $\rho$  = density,  $kg/m^3$ 

Subscripts

 $()_{\infty}$  = freestream quantity

Acronyms

CFD = Computational Fluid Dynamics

### I. Introduction

#### FZ

TNTRO sentence to paper should have this fancy capitalization.

- Real World Applications
  - parachute
  - reentry capsule
  - vehicles
  - buildings
  - show similarity between cylinder/sphere wake and more complex bluff body
- Driving Physical Phenomena
  - blunt/bluff body definition, differences from streamlined body flow
  - massively separated flow
  - base pressure
  - wake

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## **II. Experimental Methods And Results**

#### FZ

- Historical Study
- Experimental techniques

## III. Computational Methods and Results

#### LH

- Historical Study
- Computational techniques

### A. Turbulence Modeling Aspects

LH

## IV. Current State of Bluff-Body Turbulence

#### LH

- Current State of Knowledge
- Remaining Challenges

### V. Conclusions

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## Acknowledgments

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Example citations

[1]

## References

[1] Nakamura, Y., "Bluff-body aerodynamics and turbulence," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 49, No. 1, 1993, pp. 65 – 78. doi:https://doi.org/10.1016/0167-6105(93)90006-A, URL http://www.sciencedirect.com/science/article/pii/016761059390006A.