**Pelton Wheel Lab**

ME 436 Aerothermal Fluids Laboratory

Jeremy Maniago

Experiment #5

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Mechanical Engineering Dept.

The City College of New York, USA

# Abstract

In this experiment, we investigate the working principle of the Pelton Wheel, a type of impulse turbine and also the most commonly used. The goal of this experiment is to analyze the performance of the Pelton Wheel for different flow rates and rotational speeds by changing certain parameters of the contraption. This is achieved by changing the friction brake load on the wheel shaft and position of the nozzle regulating spear independently. The necessary data, which can be done by measuring the resultant flow rate, spring load, and turbine wheel rotational speeds, is then used to apply the mathematical analysis and plot visual results through MATLAB.

# Introduction

# Experimental Setup and Procedure

# Results

# Conclusions

# List of References

# Appendix A

# Appendix B

# Appendix C

# Appendix D