

Title

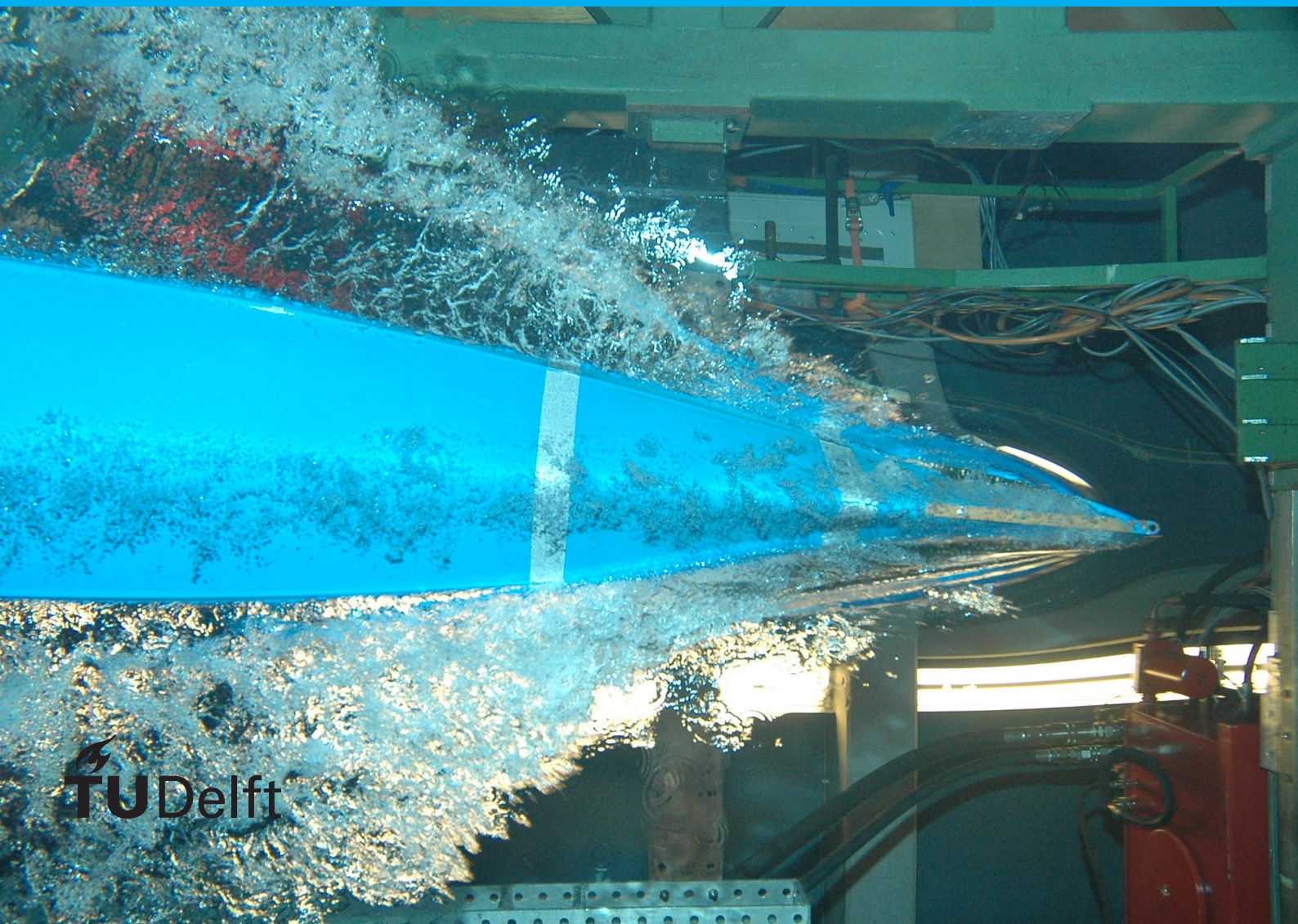
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J. Random Author

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Title

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by

J. Random Author

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Preface

Preface...

J. Random Author
Delft, January 2013

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Introduction

1.1. Near-Earth Asteroids

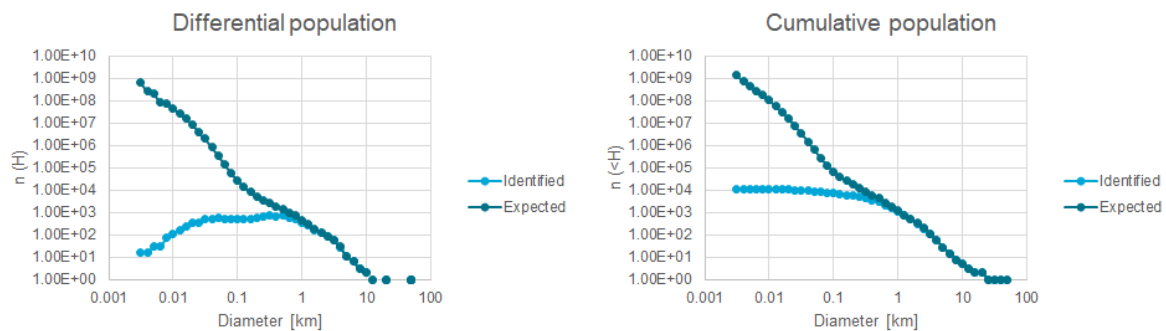


Figure 1.1: State of asteroid identification progress as of August 2014, compared to the expected number of asteroids per diameter. Harris and D'Abramo, 2015

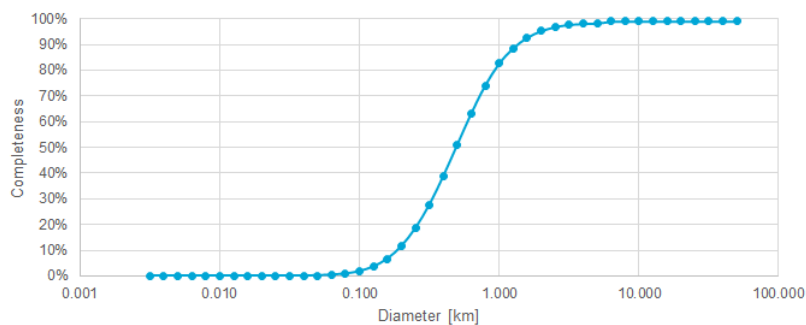


Figure 1.2: Expected survey completeness as a function of near-Earth asteroid diameter. Harris and D'Abramo, 2015

1.2. Identification of NEA's

1.3. Current Proposals

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Research Outline

2.1. Problem Statement

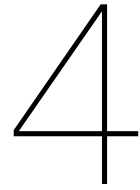
2.2. A Multi-Spacecraft Approach

2.3. Research Questions and Expected Outcomes

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Survey Modelling

- 3.1. Population of Asteroids**
- 3.2. Background Signal**
- 3.3. Target Signal**
- 3.4. Hardware Properties and Signal-to-Noise Ratio**
- 3.5. Search Strategy and Cadence**
- 3.6. Detection and Identification**



Experimental Methodology

- 4.1. Simulation Overview**
- 4.2. Implementation**
- 4.3. Optimization Methods**
- 4.4. Experimental Process**

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Results

5.1. Number of Spacecraft

5.2. Payload

5.3. Orbital Elements I: Co-orbital Spacecraft

5.4. Orbital Elements II: Non Co-orbital Spacecraft

5.5. Explanation of Observed Phenomena

5.6. Predicted Performance and Implications for Missions Design

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Sensitivity Analysis

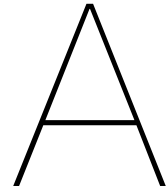
- 6.1. Expected Performance**
- 6.2. Optimization Results**
- 6.3. Hardware and Survey Properties**

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Conclusion

7.1. Opportunities for Mission Design

7.2. Recommendations for Further Research



Verification and Validation

- A.1. Modelling of Observations**
- A.2. Survey-specific Properties**
- A.3. Survey Performance**
- A.4. Optimization**

Bibliography

Harris, A. W., & D'Abramo, G. (2015). The population of near-earth asteroids. *Icarus*, 257.