

# Smoothed Particle Hydrodynamics Simulations for Asteroid Deflection

Maximilian Rutz

## **Abstract**

SPH simulations for the DART Mission ...

# Contents

<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Theory</b>	<b>3</b>
2.1	Smoothed Particle Hydrodynamics . . . . .	3
2.2	Scenario specific physical models . . . . .	3
<b>3</b>	<b>Numerics</b>	<b>3</b>
<b>4</b>	<b>Results</b>	<b>3</b>
<b>5</b>	<b>Discussion</b>	<b>3</b>
<b>6</b>	<b>Conclusions</b>	<b>3</b>

# **1 Introduction**

A number of research groups [1]

# **2 Theory**

## **2.1 Smoothed Particle Hydrodynamics**

- basics up to where special physics is implemented

## **2.2 Scenario specific physical models**

- parameter.h durchgehen, Theorie aus miluphcuda2016 kopieren

# **3 Numerics**

# **4 Results**

# **5 Discussion**

# **6 Conclusions**

## References

- [1] Sabina Raducan et al. “The role of asteroid strength, porosity and internal friction in impact momentum transfer”. In: *Icarus* 329 (Apr. 2019), pp. 282–295. DOI: 10.1016/j.icarus.2019.03.040.