

Time Delay Estimation in Gravitationally Lensed Photon Stream Pairs

Michał Staniaszek

Supervisor: Peter Tiño

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this is the abstract

1 Introduction

- explain the project in layman's terms

2 Background

- Ideas behind the project
- what it's useful for
- what gravitational lensing and time delay are

3 Photon Stream Simulation

- Poisson processes, simple equations

4 Function Estimation

- Basic explanation of the IWLS estimator
- slightly more in-depth stuff for the development of our estimators

5 Time Delay Estimation

5.1 PDF Method

5.2 Area Method

6 Experimental Results

- general explanation of the experiments performed
- how was model selection done
- what sort of data were experiments performed on

7 System

- very brief explanation of the system features

8 Conclusion

- some suggestions for extensions