## 国立天文台天文シミュレーションプロジェクト成果報告書 研究課題名

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## Respected Sir/Madam,

I am Aryan Sharma and I am currently pursuing my
Bachelor's thesis under Dr. Luca Baiotti and Dr. Kentaro Nagamine at
Osaka University, Japan. My main research topic is the study of binary
neutron star mergers both theoretically and computationally. My research
work till now has been to understand the effects of rotation of the
initial data setup of binary neutron stars and the plane in which the
merger happens. My second work is to study the effect of changes in
initial magnetic fields setup in binary neutron stars and its
significance in final merged star's parameters.

Until the end of March 2020 I have performed several tests involving rotation of Initial data of BNS through different angles and different planes.

Yours Sincerely, Aryan Sharma Osaka University Theoretical Astrophysics Group