## CERTIFICATE

This is to certify that the project report entitled "DETECTION OF SUPERMAS-SIVE BLACK HOLE BINARIES FROM EINSTEIN RINGS" is a bona fide work carried out by Junaiha O (218118), under the guidance of Dr. Nilakanthan V K in the Department of PG Studies and Research in Physics, St Aloysius College (Autonomous).

The same is being submitted to the Post Graduate Department of Physics, St Aloysius College (Autonomous) in partial fulfilment of the requirements for the award of **Master of Science-Physics**. No part of this thesis has been presented for the award of any other degree.

Rough?

Dr. Chandrashekhara Shetty T Head of the Department Dept of PG studies and research in Physics,

St. Aloysius College (Autonomous),

Mangalore.

Head
Department of Post - Graduate
Studies & Research in Physics
St Aloysius College
(Autonomous)
Mangaluru - 575 003

Dr. Nilakanthan V. K

(x) holte

Assistant Professor
Dept of PG studies and
research in Physics,

St. Aloysius College (Autonomous),
Mangalore.

P.G.
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