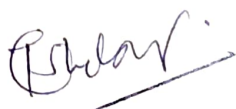


# CERTIFICATE

This is to certify that the project report entitled “**DETECTION OF SUPERMASSIVE BLACK HOLE BINARIES FROM EINSTEIN RINGS**” is a bona fide work carried out by **Tonny Mathew (218129)**, 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.



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