LENSE-THIRRING PRECESSION IN STRONG GRAVITATIONAL FIELDS

By

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STATEMENT BY AUTHOR

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DECLARATION

I, hereby declare that the investigation presented in the thesis has been carried out by me. The work is original and has not been submitted earlier as a whole or in part for a degree / diploma at this or any other Institution / University.

Chandrachur Chakraborty

List of Publications arising from the thesis

Journal

1. **Dragging of inertial frames inside the rotating neutron stars**

   C. Chakraborty, K.P. Modak, D. Bandyopadhyay, *Astrophys. J.* **790**, 2 (2014)

2. **Inner-most stable circular orbits in extremal and non-extremal Kerr-Taub-NUT spacetimes**

   C. Chakraborty, *Eur. Phys. J.* **C 74**, 2759 (2014)

3. **Strong gravity Lense-Thirring Precession in Kerr and Kerr-Taub-NUT spacetimes**

   C. Chakraborty, P. Majumdar, *Class. Quantum Grav.* **31**, 075006 (2014)

4. **Lense-Thirring Precession in Plebański-Demiański spacetimes**

   C. Chakraborty, P. Pradhan, *Eur. Phys. J.* **C 73**, 2536 (2013)

5. **Anomalous Lense-Thirring precession in Kerr-Taub-NUT spacetimes**

   C. Chakraborty, arXiv:1407.6294v2 [gr-qc]

Chandrachur Chakraborty

"जननी जन्मभूमिश्च स्वर्गादपि गरीयसी...."

(Mother and Motherland are greater than even 'Heaven')

Dedicated To

My Mother and Motherland

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"Comrade of the road,

Here are my traveller's greetings to thee..."

— Rabindranath Tagore

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Chandrachur Chakraborty

Contents