Horizon dynamics induced by charged and rotating object

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We study the perturbation induced by a slowly rotating massive object as it
passes through a Rindler horizon. It is shown that the passage of this object effectively induces a process
which can be approximately modeled as Delta function
type tidal distortions hitting the horizon. Further, following the analysis presented
by Amsel, Marolf and Virmani related to the issue of the validity of physical process
first law, we establish a condition on the size of the object so that this law holds for
the Rindler horizon. We also study the case when a charged object falls across the
horizon.

Author: Dr BHATTACHARJEE, Srijit (IIT Gandhinagar)

Co-author: Dr SARKAR, Sudipta (IIT Gandhinagar)

Presenter: Dr BHATTACHARJEE, Srijit (IIT Gandhinagar)

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