Year: 2022 | Vol.: 101 | Fasc.: 3-4

Title: On the *m*-quasi-Einstein almost contact manifolds

Author(s): Amalendu Ghosh and Dhriti Sundar Patra

In this paper, we consider the *m*-quasi Einstein metric on certain classes of almost Kenmotsu manifolds. First, we prove that if a Kenmotsu manifold admits *m*-quasi Einstein metric, then it is either trivial (Einstein) or locally isometric to a warped product space. We also provide an example of *m*-quasi-Einstein Kenmotsu metric. Finally, we prove that a non-Kenmotsu $(\kappa, \mu)'$ -almost Kenmotsu manifold admitting an *m*-quasi-Einstein metric is locally isometric to the Riemannian product $\mathbb{H}^{n+1}(-4) \times \mathbb{R}^n$.

Address:

Amalendu Ghosh Department of Mathematics Chandernagore College Chandannagar, Hooghly: 712 136 West Bengal India **Address:** Dhriti Sundar Patra Department of Mathematics Indian Institute of Technology, Hyderabad Sangareddy-502285 India