

- **Pundeer, Naeem: Semiconformal curvature tensor and fluid space-time in general relativity (SR1 c)**

In this talk, the divergence of the semiconformal curvature tensor has been studied in detail. The semiconformal curvature tensor is considered invariant under conformal transformation and the necessary and sufficient conditions for the semiconformal curvature tensor to be divergence-free in a perfect fluid spacetime has been obtained. It is seen that aforementioned spacetimes either satisfy the vacuum-like equation of state or represent an FRW cosmological model. The semiconformal curvature tensor has also been expressed with regards to different known tensors in the literature and association between their divergences have been acquired