this abstract is also more complete

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Estakhr's Relativistic Decomposition of Four-Velocity Vector Field of Big Bang (Big Bang's Turbulence) AHMAD REZA ESTAKHR, Researcher — $\overline{U}^{\mu} = \lim_{\tau\to\infty}(\frac{1}{\tau}\int_o^{\tau} U^{\mu} d\tau)$ where the τ is proper time and $\tau_o = 0$ is the beginning of the universe. $U^{\mu} = \overline{U}^{\mu} + U'^{\mu}$ Estakhr's decomposition is a mathematical technique to separate the average and fluctuating parts of Big Bang. where the $\overline{U}^{\mu}$ denotes the proper time average called steady component of big bang and U'^{μ} is fluctuating part called Big Bang's perturbations (Big Bang's Turbulence). Estakhr's Proper-Time Averaged of Material-Geodesic Equations Using this mathematical technique, (applications: Big Bang Hydrodynamics, Supernova Hydrodynamics, etc...) $\frac{D\overline{J}^{\mu}}{D\tau} = \overbrace{\overline{J}^{\nu}\partial_{\nu}\overline{U}^{\mu} + \partial_{\nu}\overline{T}^{\mu\nu} + \Gamma^{\mu}_{\alpha\beta}\overline{J}^{\alpha}\overline{U}^{\beta}}^{SteadyComponent} + \overbrace{\partial_{\nu}R^{\mu\nu} + \Gamma^{\mu}_{\alpha\beta}R^{\alpha\beta}}^{Perturbations}$ EAMG equations are proper time-averaged equations of relativistic motion for fluid flow and used to describe Relativistic Turbulent Flows (such as big bang eruption and/or supernova, etc ...).

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