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	title	3-D exact analytical solutions of two fluid plasma, MHD and neutral fluid equations for the creation of ordered structures as well as jet-like flows	**title**	3D Exact Analytical Solutions of Two-fluid Plasma, Magnetohydrodynamics, and Neutral Fluid Equations for the Creation of Ordered Structures as well as Jet-like Flows		
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	id	id4316993057341677641	**id**	id-3738786662911198726		
	abstract	The 3-D exact analytical solutions of ideal two fluid plasma, single fluid plasma (MHD) and neutral fluid equations have been found using physically justifiable assumptions. Surprisingly these solutions satisfy all non-linearities in the systems. It is pointed out that these solutions explain the fundamental mechanism behind the creation of vast variety of ordered structures in plasmas and fluids. In the limiting case of two dimensional (2-D) dependence of fields, the theoretical model for plasma is applied to explain the formation of spicules in solar chromosphere. It is pointed out that the main contribution of electron (ion) baro clinic vectors is to produce vorticity in the plasma and that magnetic field generation is coupled with the flow of both electrons and ions.	**abstract**	The 3D exact analytical solutions of ideal two-fluid plasma, single-fluid plasma, and neutral fluid equations have been found using physically justifiable assumptions. Surprisingly these solutions satisfy all nonlinearities in the systems. It is pointed out that these solutions explain the fundamental mechanism behind the creation of a vast variety of ordered structures in plasmas and fluids. In the limiting case of 2D dependence of fields, the theoretical model for plasma is applied to explain the formation of spicules in the solar chromosphere. It is pointed out that the main contribution of electron (ion) baroclinic vectors is to produce vorticity in the plasma, and that magnetic field generation is coupled with the flow of both electrons and ions.		
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