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**Equilibrium configurations from gravitational collapse**

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We study how equilibrium configurations can be obtained as the result of gravitational collapse from regular initial conditions within the general theory of relativity. Assuming that the collapsing cloud is composed by a perfect fluid we show that the equilibrium geometries generated by this procedure form a subset of static interior solutions to the Einstein equations. We further show that these static configuration can be either regular or develop a naked singularity at the center, where the presence of a naked singularity is given a precise physical interpretation. We then study the properties of stable circular orbits around and inside such equilibrium configurations and show that in the case where a naked singularity is present there are key observational differences with respect to the properties of a Schwarzschild black hole with the same mass. We conclude that if similar objects can form in the universe they could be observationally distinguished from a black hole of the same mass.