

A New Explanation of the Unresolved Questions in Physics and Cosmology, 2026

– Part C: What Is a Solar Prominence?

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Given the Sun's enormous mass and its powerful gravitational and magnetic fields, plasma associated with a solar prominence does not necessarily move freely once it leaves the lower solar atmosphere. Because a solar prominence consists of ionized plasma containing charged particles, its motion is strongly influenced by magnetic fields. The plasma can therefore become confined and guided along magnetic flux structures rather than moving freely in arbitrary directions.



Under suitable magnetic conditions, these structures can remain relatively stable for extended periods, allowing the prominence to preserve its overall shape and structure. This does not necessarily mean that the plasma itself comes to a complete halt; rather, its motion is constrained by the surrounding magnetic field and the configuration of the magnetic flux.

Note: The structure of stars in the Universe may be compared, as a conceptual analogy, to a large pot in which water boils and produces steam. In this analogy, nuclear processes can be likened to the bubbling of the pot, while solar prominences can be compared to the steam produced above it. From this perspective, it is conceptually understandable that stellar systems can contain enormous numbers of energetic processes and plasma structures of different sizes. However, this comparison is intended only as an analogy and should not be taken as a literal description of the physical processes occurring inside stars.



References:

- [1] NASA. “What Is a Solar Prominence?” NASA, 6 Mar. 2015, www.nasa.gov/image-article/what-solar-prominence/. Accessed 3 Oct. 2026.
- [2] Saleh, Gh. “New Discoveries Regarding Gravity and Magnetism in the Universe 2026.” Saleh Theory, 28 Apr. 2026, <https://saleh-theory.com/article/new-discoveries-regarding-gravity-and-magnetism-in-the-universe-2026>

