Periastra : Participant Information

LPPFusion #08

Dr. Syed Hassan with the LPPFusion device

About the LPPFusion device

Fusion energy can fully replace fossil fuels at much lower cost to our health, our ecosystem and our pockets – while at the same time providing grounds for more equality and better standard of living for all. LPPFusion is a high tech R&D company developing clean Focus Fusion technology.

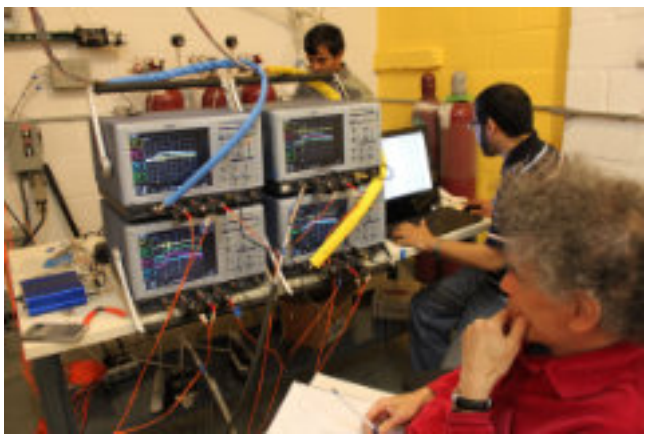
The mission is to provide environmentally safe, clean, cheap and unlimited energy for everyone through the development of Focus Fusion technology, based on the Dense Plasma Focus (DPF) device and hydrogen-boron fuel. The nuclear fusion energy R&D project will produce safe and clean energy without any radioactive waste. Our project was initially funded by NASA's Jet Propulsion Laboratory. It is now backed by over 1000 private international investors including the Abell Foundation of Baltimore.

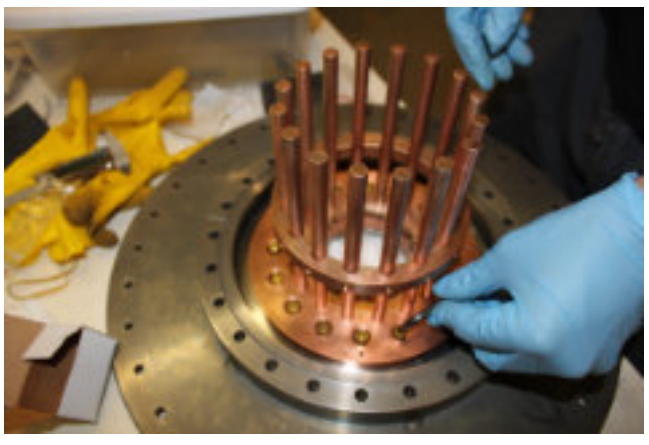
The patented technology and peer-reviewed science are guiding the design of our fusion energy based visions of future; a future where humans and planet come before profits. Fusion energy generators can produce virtually unlimited source of environmentally clean energy thanks to the energy density of the novel, aneutronic pB11 (boron) fuel.

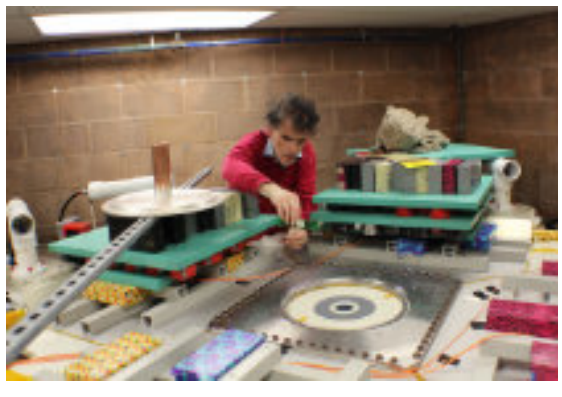
We are working to demonstrate the scientific feasibility of Focus Fusion experimental generators at our laboratory in Middlesex, New Jersey.

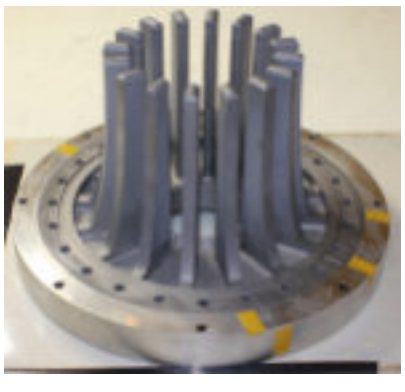
https://lppfusion.com

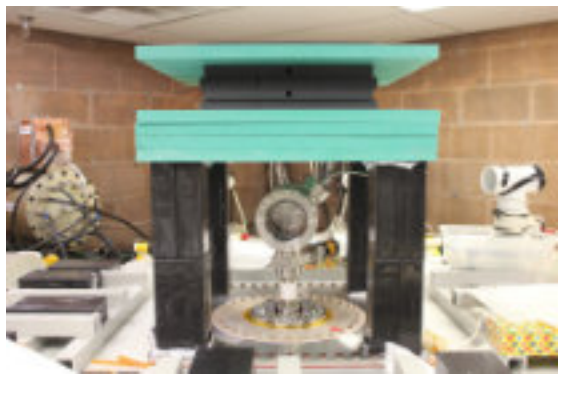
Scenes from the laboratory



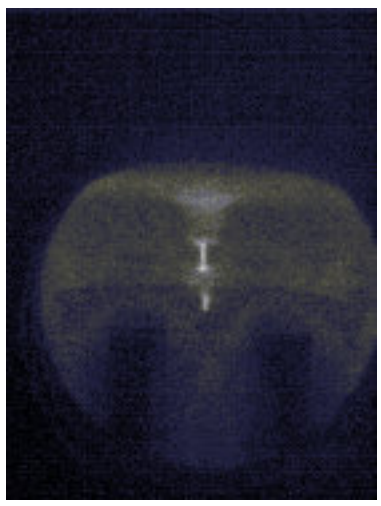
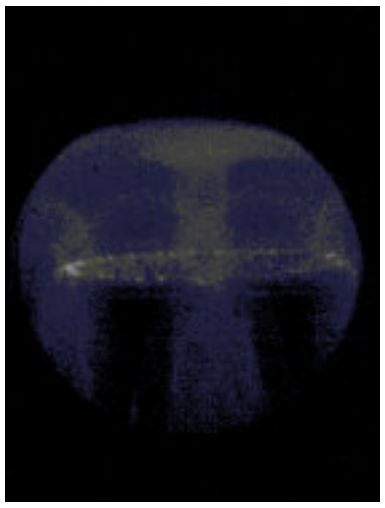
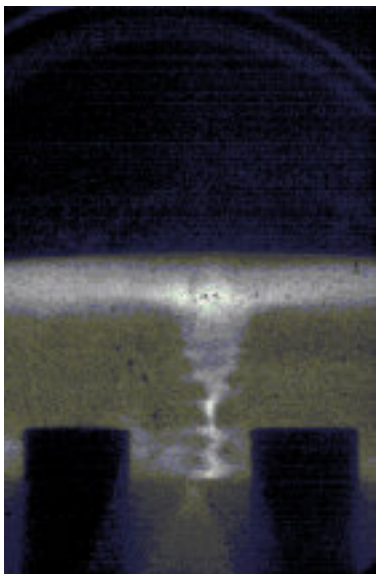
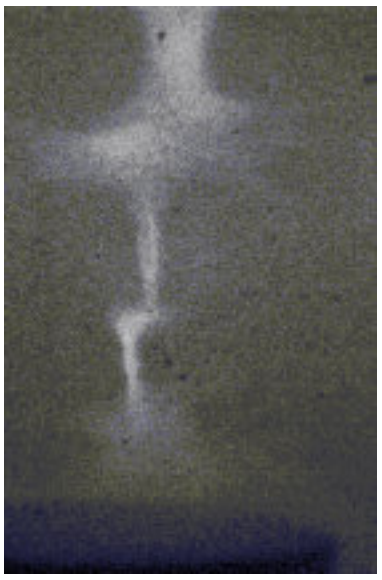


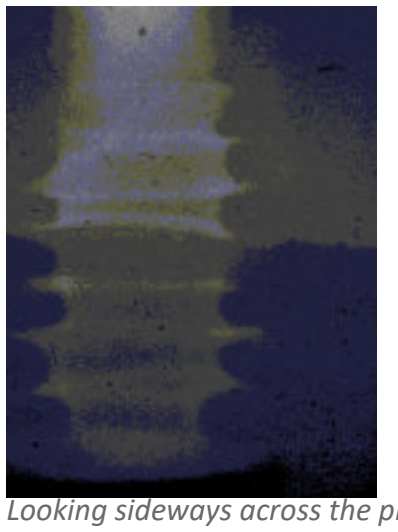
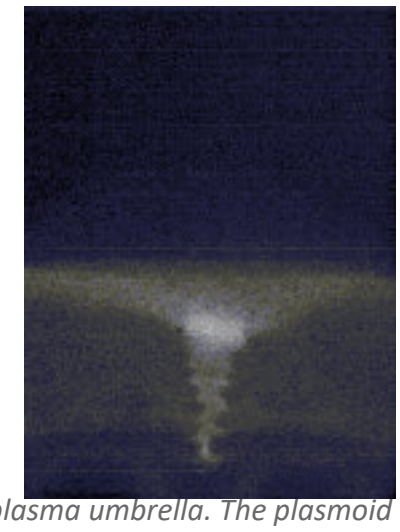
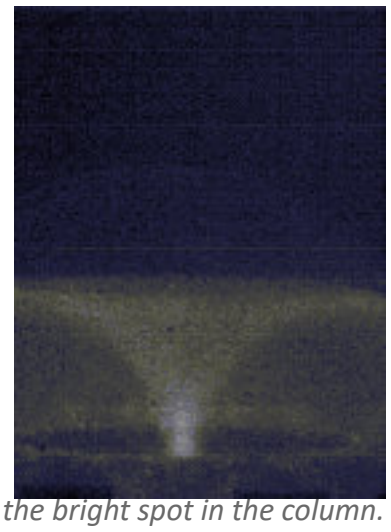
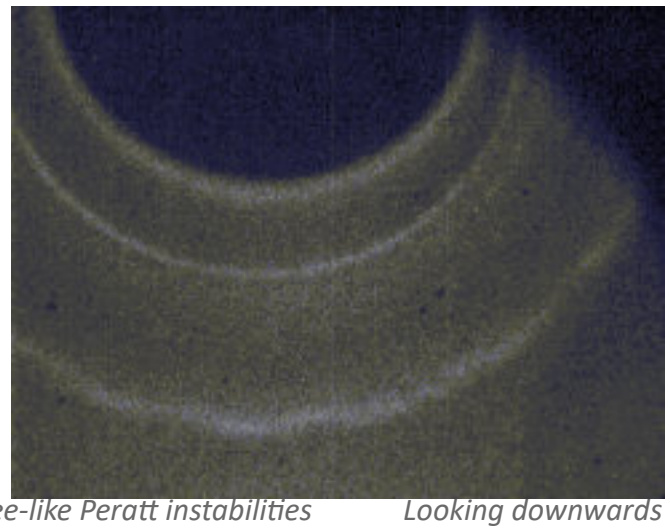






Plasmas inside the device

Looking sideways across the plasma umbrella. The plasmoid is the bright spot in the column. Note the tree-like Peratt instabilities *Looking downwards*

About the artwork

In this exhibition are movies of actual scenes taken within the environs of the laboratory when construction and firings of the focus fusion device are taking place.

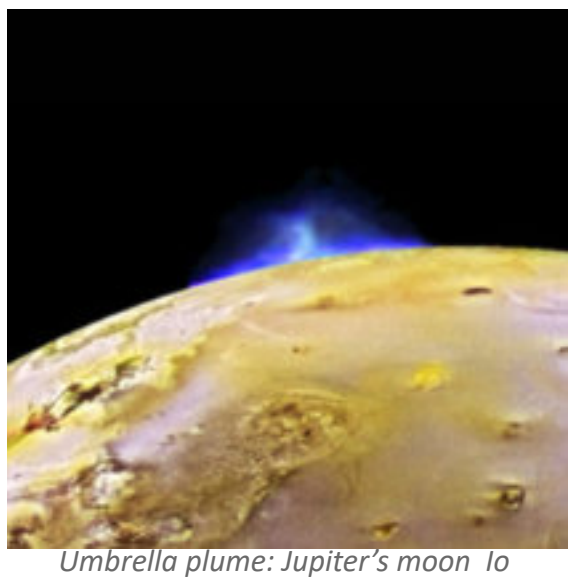
The astrophysical connection

The discovery by Hannes Alfvén and his colleague Carl-Gunner Falthammar of the basic role played by filaments of current in the cosmos in the formation of structure, from stars up to galaxies, laid the basis for understanding filamentation in the plasma focus device.

Similarly, LPPFusion Chief Scientist Eric Lerner's research in the 1980's using the formation of a plasmoid in the Dense Plasma Focus, as a model for understanding quasars, led to the formulation of a quantitative theory of the functioning of the DPF. This theory in turn predicted that the plasma focus could be used for pB11 (boron) fusion.

In astronomy there are numerous examples of jets operating at every scale. Jets from galaxies are some of the largest coherent structures in the Universe and plasmoids are a contender for what lies at the centre of every galaxy . On a stellar scale are the Herbig-Haro objects, most of which are found in star forming regions. Included below also are the umbrella plumes that can be found in the highly electrical environment of Jupiter's moon Io.





Astro-jet examples: Centaurus A, *Herbig-Haro 111* *Umbrella plume: Jupiter's moon Io*

Movies online

Eric Lerner interview 44:30

Documentary about nuclear fusion
'Let there be Light' with LLPFusion
Vimeo paywall: £3.72