Contribution ID: **999** Type: **Poster**

1P17 - Spontaneous density variations observed in steady-state plasmas sustained using focused microwaves.

Monday 24 June 2019 13:00 (1h 30m)

The US Air Force is investigating the dynamics of plasmas sustained for long times using focused microwaves laboratory in conditions which approximate free-space. When the plasma density is sufficiently below the cut-off density the plasma develops regular desnity variations with a wavelength equal to one half the wavelength of the drive beam. We hypothesize that these density variations are the result of standing waves generated by multiple reflections of the drive beam within the plasma. Preliminary simulations taking into account beam diffraction, ionization and diffusion support this interpretation.

Authors: Dr REID, Remington (US AFRL); Mr LOPEZ, Adrian (US AFRL)

Presenters: Dr REID, Remington (US AFRL); Mr LOPEZ, Adrian (US AFRL)

Session Classification: Posters Fundamental Research and Basic Processes and Power Electronics

Track Classification: 1.1 Basic Phenomena;