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**Star Mode – The improved operating regime of a Fusor**

MATTHEW LILLEY, NICOLAS NIASSE, Imperial College London — It was found in 1997, by G. H. Miley, that Fusors can operate in a regime where the effective transparency of the accelerating grid is greatly enhanced over the value one would traditionally expect from considering the fraction of area taken up by the grid wires. This “Star Mode” reduces the heating of the grid wires and so should in principle allow smaller devices to be constructed. At present there is no satisfactory explanation for this Star Mode. In this presentation we revisit some of the basic ideas and offer some new insights into the problem by considering how the discrete symmetry of the system affects the stability of the individual particle orbits.

Matthew Lilley  
Imperial College London

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