

Abstract Submitted  
for the DPP10 Meeting of  
The American Physical Society

**Investigating the  $\beta$  limit on MST with pellet injection and NBI**  
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FOUST, ORNL — Pellet injection into improved confinement ohmically-heated  
MST plasmas has resulted in a density exceeding substantially the empirical Green-  
wald Limit and a total  $\beta$ , normalizing to the magnetic pressure at the plasma bound-  
ary, of 26%. Although tearing mode amplitudes are larger at higher  $\beta$ , a clear  $\beta$   
limit has not been observed. The addition of a 1 MW heating neutral beam on  
MST will provide additional heating which will be utilized to further probe for a  
 $\beta$  limit. The fast ion confinement is measured to be several times greater than the  
thermal particle confinement time, but the thermalization time tends to be long for  
low density improved confinement plasmas. The high density, low temperature pel-  
let fueled plasmas should provide an ideal target for deposition of the beam power  
to the plasma. Work Supported by USDOE.

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Date submitted: 17 Jul 2010

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