# Long-time Confinement of Toroidal Electron plasma in SMARTEX-C

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In the present work, mitigation of instabilities leading to the excellent confinement of toroidal electron plasma in steady state is reported. Work includes characterizing and identifying the instabilities of electron plasmas observed in SMARTEX-C(SMall Aspect Ratio toroidal Electron plasma eXperiment in 'C' shaped geometry) which has led to determine the parameter regime where instabilities can be controlled and quiescent toroidal electron plasma can be confined in steady-state. Excellent confinement led to the controlled electron plasma experiments in SMARTEX-C. Confinement time interestingly exceeds the theoretical limits of confinement hitherto predicted. The steady state confinement in fact gave us the opportunity to examine and test some of these existing theoretical predictions and transport theories [1].

## References

[1] S. Crooks, T. ONeil, Physics of Plasmas. **3**, 2533 (1996)