

ECE SUMMARY

Max Austin

EC-14

ECE Measurements – 2D Imaging

- I. Classen
- G.-W. Spakman
 - high resolution measurements of tearing mode suppression with ECRH on TEXTOR
 - study details of sawtooth crash

ECE Measurements

- K. Nagasaki
 - measurement of EC absorption in Heliotron J to assess ECH and ECCD expectations
- H. Pandya
 - sawtooth measurements on Aditya tokamak; heat pulse data
- J.-L. Ségui
 - method to provide real time ECE-Te profile data with data corrected for mag. equil. and rel. shifts.
- T. Goodman
 - oblique ECE measurements on TCV; real-time movable; co & counter toroidal, poloidal directions
- M. Sato
 - calculations of ECE spectra for case of oblique propagation in reactor grade plasma
- O. Tudisco
 - new antenna for oblique ECE measurements on FTU

EBW / EBE

- G. Taylor
 - prospects for EBW-CD in ST's; 4 MW system planned for NSTX
- R. Harvey
 - EBW emission not immune from effects of nonthermals
- J. Urban
 - EBW emission simulations for NSTX; modified magnetic field yields better agreement
- J. Caughman
 - design of EBW emission radiometer for TJ-II stellarator

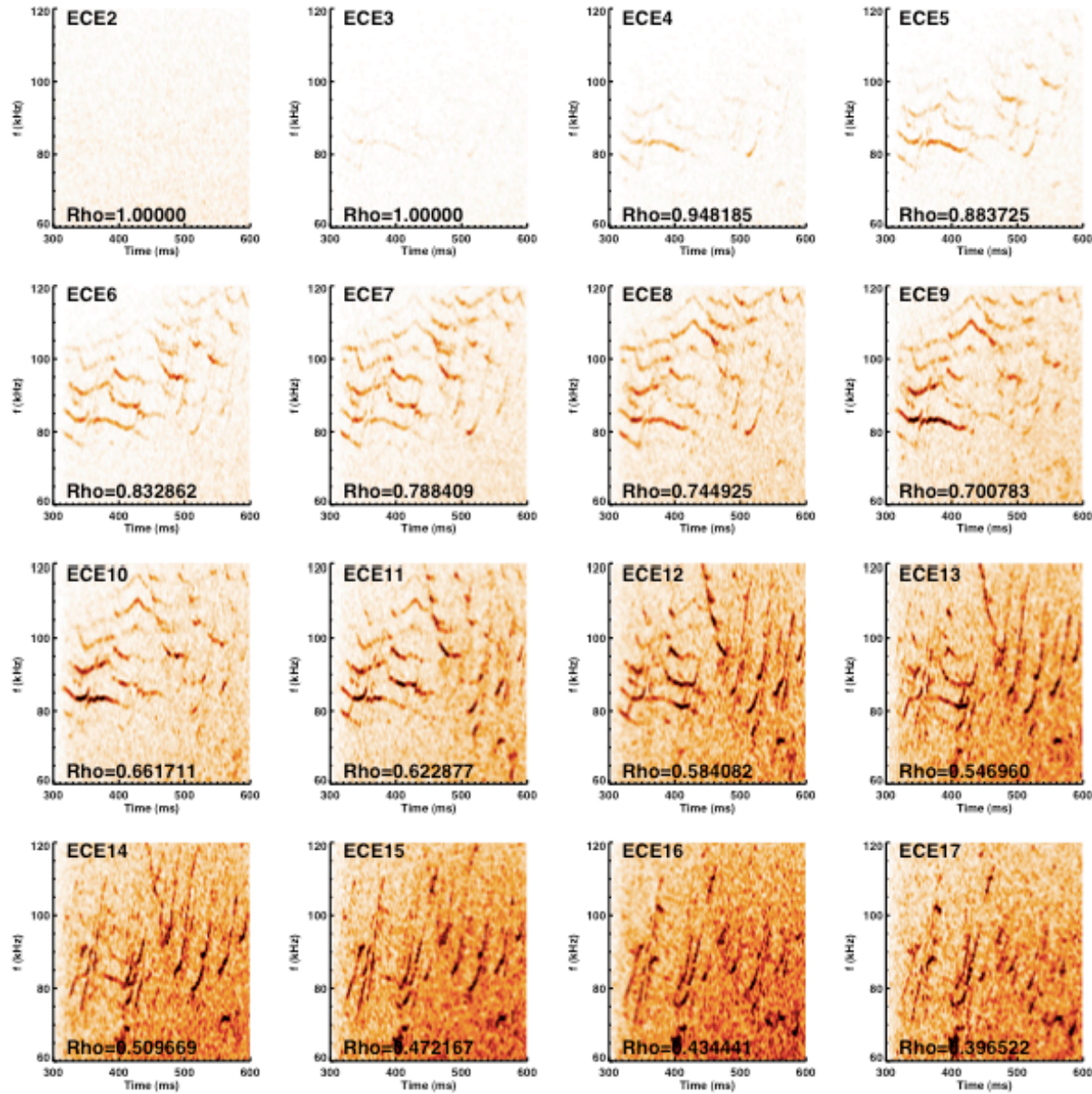
ECE Hardware

- C. Sozzi
- A. Simonetto
 - new multichannel Martin-Puplett interferometer for JET
 - perpendicular and oblique views
- R. Ellis
 - new high resolution optics for DIII-D ECE radiometer
- T. Goodman/ V. Udintsev
 - ECE diagnostics on TCV, HFS/LFS/oblique views, correlation radiometer planned
- J. Oosterbeck
 - ECE diagnostic for ECRH feedback; same line of sight as gyrotron

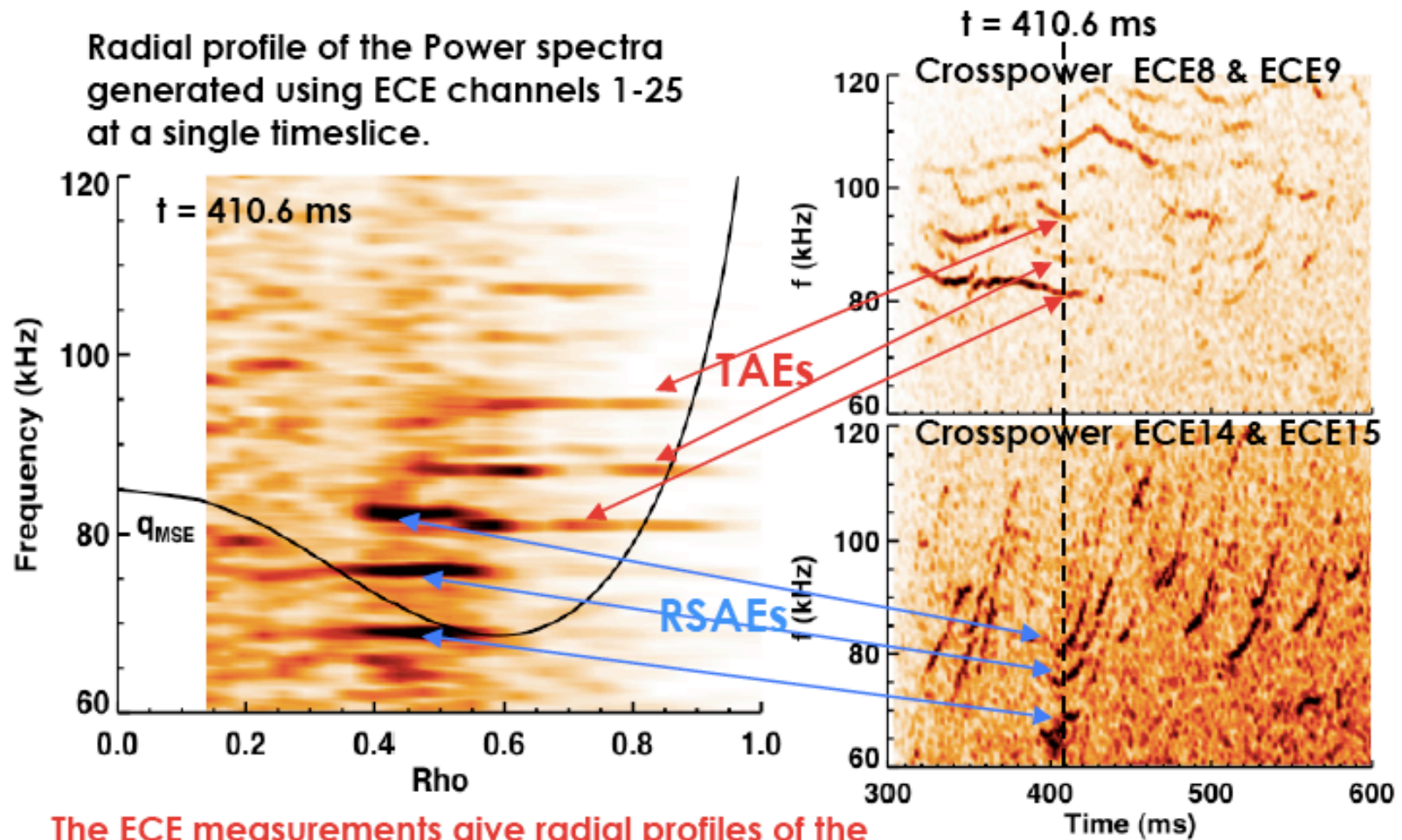
ECE scattering

- P. Michelsen
 - collective Thomson scattering on TEXTOR, ASDEX;
design for ITER

Detection of fast ion modes in ECE data in DIII-D



Radial profile of the Power spectra generated using ECE channels 1-25 at a single timeslice.



The ECE measurements give radial profiles of the TAEs and RSAEs. They also show that the q -profile from MSE has the minimum slightly too far out radially.

ECE on ITER

- **time for decisions to be made; port plug**
 - **oblique view – if it can be done without major increased cost, why not?**
- **ITER ECE has fewer issues than many other diagnostics**
- **reminder: *experimental* reactor**