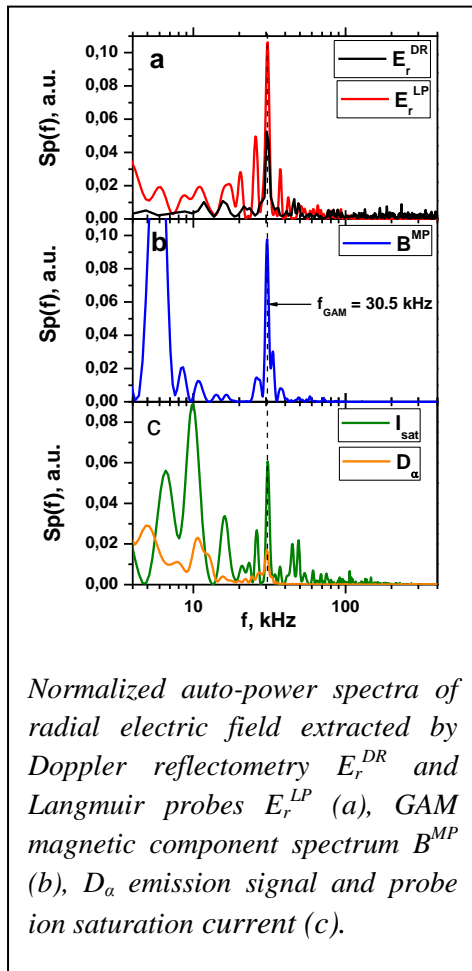


EX/P1-32 Geodesic acoustic mode investigation in the spherical Globus-M tokamak using a multi-diagnostic approach



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1. Multi-diagnostic approach for GAM study in spherical torus. Doppler microwave backscattering diagnostic, Langmuir probes, D_α emission detectors and Mirnov coil arrays.

2. GAM manifestation in power spectra of all diagnostics signals.

3. Spatial GAM $E \times B$ velocity structure with mode number $m=0$ and spatial plasma density structure with mode number $n = 0$.

4. The discovered GAM oscillations of Mirnov coil signals are drastically decreased at low field side. Sideband magnetic field perturbations $\delta B \sim \cos(m\theta)$ with mode number $m = 2$.

5. The evolution of three-wave coupling between plasma turbulence and global GAM oscillations during L-H transition performed through bicoherence analysis in spherical torus.

