# (SG3, IA) Session Report

May 8, 2024 (K. Ogawa)

**Date**: May 2, 2024
**Time**: 11:45-14:08
**Shot#**: 190600-190628 (29 shots)
**Prior wall conditioning**: No
**Divertor pump**: On
**Gas puff**: $H_2$, Ar
**Pellet**: No

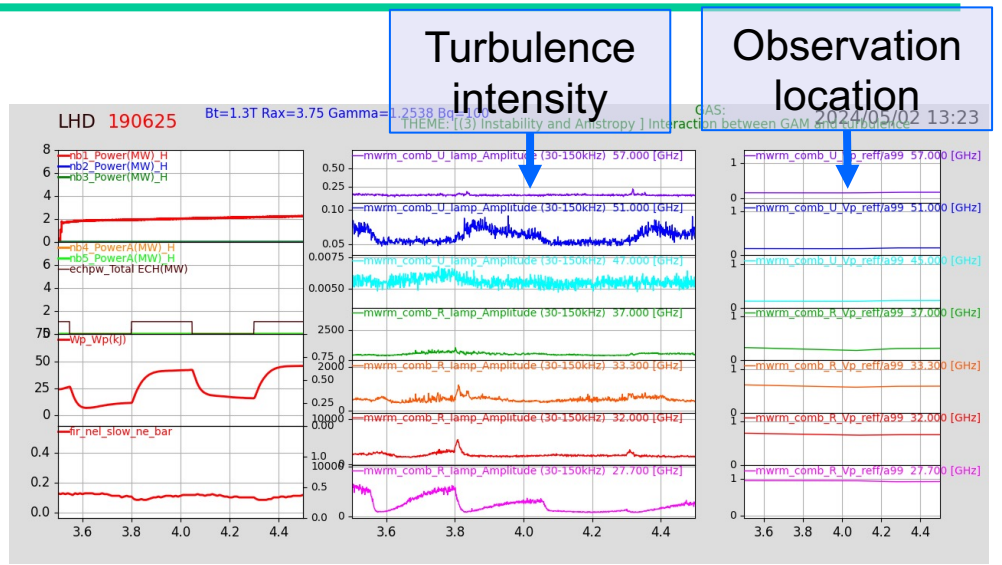
**NBI**#(1, 2, 3, 4, 5) = gas(H, H, H, H, H)=P(3.0, 3.3, 3.3, 3.0, 5.2) MW
**ECH**(77GHz) = ant(1.5-Uo, 5.5-U, 2-OUR)=P(0.337, 0.380, 0.389) MW
**ECH**(154GHz) = ant(2-OLL, 2-OUL, 2-OLR)=P(0.580, 0.606, -) MW
**ICH**(3.5U, 3.5L, 4.5U, 4.5L) = P(-, -, -, -) MW

**Topics**

1. Interaction between GAM and turbulence (T. Tokuzawa)

# Interaction between GAM and turbulence (T. Tokuzawa)

**Experimental conditions: ($R_{ax}$, Polarity, $B_t$, γ, $B_q$)**
**=** (3.75 m, CW, 1.375 T, 1.2538, 100.0%) #190600- #190614
**=** (3.75 m, CW, 1.370 T, 1.2538, 100.0%) #190615- #190628




**Aim:**

- Investigation of cross-scale coupling/interaction between meso-scale (GAM) and micro-scale turbulences

**Results:**

- Continuous oscillation GAMs could not be excited, but frequency chirped-up energetic particle-driven GAM oscillation was successfully achieved.
- Combination with ctr-NBI and ECH can enhanced this GAM excitation.
- Repeated GAM oscillations are simultaneously observed as fluctuations in electron density, temperature, potential, and magnetic field.
- Turbulence response will be analyzed using condional averaging technique.