

Abstract Submitted  
for the GEC20 Meeting of  
The American Physical Society

**On the high frequency floating harmonic method in inductively coupled plasmas** BEOM-JUN SEO, KYUNG-HYUN KIM, CHIN-WOOK CHUNG , Hanyang university — In the conventional floating harmonic method, the sinusoidal voltage of which frequency is kHz were applied to the probe sheath. In this work, the floating harmonic method using sinusoidal waveform at 1 MHz is proposed to measure plasma parameters such as the plasma density and electron temperature with high-time resolution. In the high frequency (1 MHz) floating harmonic method, we applied a Child-Langmuir sheath model to consider a capacitance of the probe sheath. The plasma parameters obtained from the high frequency floating harmonic method are in good agreement with measurements from the electron energy distribution function.

Beom-Jun Seo  
Hanyang university

Date submitted: 12 Jun 2020

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