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Statistical Analysis on Frequency Ocsilation Mirnov Coil in IR-TI Tokamak SHERVIN SAADAT, Islamic Azad University-Ahvaz Branch, Ahvaz; Plasma Physics Research Center, Sience & Research Campus, Islamic Azad University, Tehran, Iran, M. KAZEM SALEM, Plasma Physics Research Center, Sience & Research Campus, Islamic Azad University, Tehran, Iran — Resonant helical field (RHF) is one of the present fields in IR-T1 tokamak. RHF changes plasma mode and increases the time of plasma confinement in tokamak. Mirnov coils are the most useful diagnostics in tokamaks. In this work, the statistical analysis on frequency (SPSS) for mirnov coils data has been utilized and the effect RHF on plasma stability is studied For this purpose we define a time series on mirnov coils data and use the spectral density analysis. We show that the frequencies will be change and the plasma modes too. We can calibrate RHF & feedback fields in IR-T1 tokamak and similar tokamaks [1,2].

[1] G. M. Jenkins & D. Watt, "Spectral Analysis & Its Applications," 1968.
[2] C. Chatfield, "The Analysis of Time Series: An Introduction," 2^{nd} Edition, 1982

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