

Abstract Submitted
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Comparison of conditional averaging and super-resolution method DIETMAR BLOCK, IULIAN TELIBAN, ALEXANDER PIEL, IEAP, University Kiel, Olshausenstr. 40-60, 24098 Kiel, Germany — Conditional averaging and cross-correlation analysis allow in-depth study of plasma turbulence with just two probe tips. Two-dimensional probe arrays are now employed to provide spatial-temporal resolution at plasma turbulence. Increasing the spatial resolution of probe arrays to those of two probe techniques is difficult to achieve. Typically, there is at least a factor of four less resolution in space for probe arrays. Recently, we introduced a super-resolution method to numerically enhance the spatial resolution of probe arrays by transferring information from time to space domain [1]. This allows us to compare two point techniques with spatial-temporal measurements directly. Here, we will use experimental data to discuss the prospects and limitations of two probe methods [2] in detail.

[1] I. Teliban, D. Block, A. Piel, and V. Naulin, PPCF 48 (2006).

[2] D. Block, I. Teliban, F. Greiner, and A. Piel, Phys. Scripta T122 (2006).

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