

## The Set of Diagnostics for the First Operation Campaign of the Wendelstein 7-X Stellarator

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**ABSTRACT:** Wendelstein 7-X (W7-X) is a large optimized stellarator ( $B=2.5T$ ,  $V=30m^3$ ) aiming at demonstrating the reactor relevance of the optimized stellarators. In summer this year (2015) W7-X will begin its first operation phase (OP1.1) with five inertially cooled inboard limiters made of graphite. Assuming the heat loads can be spread out evenly between the limiters, 1 second discharges at 2 MW of heating power could be run in OP1.1. The diagnostics available for this first operation phase, including some special limiter diagnostics, and their capabilities are being presented.

This paper will be published in the special 1<sup>st</sup> ECPD issue of JINST.

First EPS Conference on Plasma Diagnostics - 1<sup>st</sup> ECPD

14-17 April 2015,

Villa Mondragone, Frascati (Rome) Italy

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