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## **P3.227 Analysis of S-CO<sub>2</sub> Brayton Power Cycles for Fusion power reactors**

*Wednesday, 19 September 2018 11:00 (2 hours)*

The paper focuses on the design of appropriate power cycles for fusion power reactor, two S-CO<sub>2</sub> Brayton cycles, and its positive and negative aspects. The goal of the paper is to propose a suitable power cycle and its optimization for the European fusion power plant DEMO2. Comparison of cycles in terms of using more heat resources at once is depicted. The study gives a principal preview of main technical parameters of the suitable S-CO<sub>2</sub> power cycles. Optimization of suggested designs in order to maximize the power of the fusion power plants is presented.

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