

Curriculum Vitae of: Asztalos Örs

Asztalos Örs was born in Medias, Romania, on the 15th of June 1989. He is the father of a 3-year-old son, Iván and has a happy family. The Centre for Energy Research employs him as a physicist and the Institute for Nuclear Techniques of the Budapest University of Technology and Economics as a research assistant.

Örs started his studies at the Faculty of Physics of the Babes-Bolyai University in Cluj-Napoca, Romania, where plasma physics piqued his interest during a visit to the IPP Summer School on Plasma Physics and Fusion in 2011. After graduating, pursuing plasma and fusion physics led him to the Institute of Nuclear Techniques to continue his studies in 2012.

He met his current supervisor, Dr Pokol Gergő and the fusion research community works with him to this day. After obtaining an MSc in nuclear physics, he started a PhD in plasma physics at the same institute.

During his PhD, he participated in numerous research projects; his primary focus was the modelling and related activities of beam emission spectroscopy (BES) diagnostics. A significant aspect of his work was to model, optimize and participate in the design of BES diagnostic systems. As a result, he had an important role in realizing the BES systems on W7-X (Germany) and two systems on EAST (China). Further work still in progress is the design considerations for two BES systems on ITER (France) and an additional two on JT-60SA (Japan).

Another important aspect of his work was the development of synthetic diagnostics to develop a method for first principle plasma physics model validation. In addition, he successfully developed a novel approach to assess the relevance of plasma neutral impact on the beam evolution process.

In the course of his work, he participated in the experimental measurement campings of ASDEX-Upgrade (Germany), JET (UK) and EAST (China). In addition, his modelling work brought him into the EUROfusion code development and integration package, where he participated for over four years and ended up with lasting, fruitful collaborations. Such as with DTU Denmark or ATOMKI Debrecen. He further collaborated with IAEA over the past three years on several cross-sections and modelling-related projects.

He currently has 15 paper publications to his name, two of which are first-author works and many conference appearances.