

Journal receives its first paper from space

November 11 2011

EPL (Europhysics Letters) has today gone beyond Earthly limits by publishing its first ever paper submitted from space.

Concerned with the properties of complex plasma in almost zero gravity conditions, the paper represents collaborative research of 29 individual missions performed over the last 10 years by German and Russian researchers aboard the [International Space Station](#) (ISS).

The experiments detailed in the paper were performed on the ISS in July 2010 by Alexander Alexandrovich Skvortsov and were submitted on 27 October 2011 by Skvortsov's colleague, Sergey Alexandrovich Volkov, who remains on the ISS.

The idea to submit a paper from the ISS was prompted by a video interview with Michael Schreiber, Editor-in-Chief of *EPL*, conducted by the editor of *Physics World* magazine, Matin Durrani, at a meeting to celebrate *EPL*'s 25th anniversary in Munich.

Schreiber stated that *EPL* had always attracted [manuscripts](#) from around the globe, and it would certainly also accept manuscripts from beyond the globe.

Writing in the editorial of this issue, Schreiber said: "I certainly hope to attract further excellent research from beyond the globe. Of course, it is unlikely that we will receive manuscripts from, or beyond, the Moon in the near future. But maybe the first Mars mission is just in time to

submit a manuscript in the year of *EPL*'s golden jubilee in 2036."

Published today, 11 November, the [paper](#) reports on the measurements of the speed of sound within complex plasmas. The measurement of the speed of sound is an important tool to characterize the structure, properties and behaviour of a certain material. For instance, it can provide information on a material's elasticity.

Under normal Earth gravity, only thin layer systems of complex [plasma](#) can be examined; however, three-dimensional investigations can be performed under microgravity – conditions where gravity is very, very weak.

More information: The published version of the paper "Direct measurement of the speed of sound in a complex plasma under microgravity conditions" M. Schwabe et al 2011 *EPL* 96 55001 is freely available from www.iopscience.iop.org/0295-5075/96/5/55001

Michael Schreiber's editorial can be downloaded from www.iopscience.iop.org/0295-5075/96/5/50000

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