



Contribution ID: 12

Type: **Plakat // Poster**

Software for automated data analysis from ultrasound propagation under pressure

Saturday, 6 September 2025 19:20 (20 minutes)

A software was written in Python for data analysis automatization of ultrasound propagation in liquids under pressure from a custom measurement setup.

An algorithm was developed for parametrical tracking of ultrasound wave packets, which are crucial in calculations of the speed of sound (SoS) and damping.

Series of tests were performed to compare the SoS results under normal conditions using standard equipment with developed method.

The authors would like to acknowledge funding from the European Union's Horizon 2020 (H2020) research and innovation programme (grant agreement no. 101017858).

Primary author: SVETLIČIĆ, Lana (Instytut Fizyki im. A. Chełkowskiego, Uniwersytet Śląski w Katowicach)

Co-authors: Mr WICHER, Jarosław (Instytut Fizyki im. A. Chełkowskiego, ul. 75 Pułku Piechoty 1, 41-500 Chorzów); Prof. CHORAŻEWSKI, Mirosław (Instytut Chemii, Uniwersytet Śląski w Katowicach); Dr GEPPERT-RYBCZYŃSKA, Monika (Instytut Chemii, Uniwersytet Śląski w Katowicach); Dr ZAJDEL, Paweł (Instytut Fizyki im. A. Chełkowskiego, ul. 75 Pułku Piechoty 1, 41-500 Chorzów)

Presenter: SVETLIČIĆ, Lana (Instytut Fizyki im. A. Chełkowskiego, Uniwersytet Śląski w Katowicach)

Session Classification: InnoFusion 2025: Sesja plakatowa

Track Classification: Aplikacja // Implementation