

Postdoc Position in Acoustic Signal Processing

About the Project

You will join the Division of Applied Acoustics at Chalmers University of Technology as part of the consortium of the project Levitate, which otherwise consists of Glasgow University, University of Sussex, Aarhus University, and Ultrahaptics Ltd., and which is funded by the European Commission in the excellence programme Future and Emerging Technologies (FET Open). The project Levitate creates, prototypes and evaluates a holographic display composed of levitating matter. The underlying technology uses high-intensity ultrasound produced by a transducer array to levitate particles and create haptic feedback as well as audible sound. Visit the project website <https://www.levitateproject.org> for more information.

About the Position

One of the major technologies employed in the project is parametric audio, which exploits nonlinearities in air to create audible sound from an ultrasonic carrier wave. Your task will be to integrate this modality into the Levitate framework. I.e., you will combine the concept of parametric audio with, for example, beamforming, levitation, and potentially also active noise cancelation. You will receive a 12-month employment at Chalmers with a salary according to current salary agreements. The start date is flexible but should be no later than January 2020, and the work plan will be defined taking your profile into account.

Requirements

- PhD degree in Electrical Engineering, Physics, Computer Science or related field with a strong focus on acoustics and/or signal processing
- Strong skills in Matlab and/or Python (you will be working in Python)
- Strong signal processing skills
- Excellent communication skills (oral and written) and a strong willingness to collaborate with a (remote) team are a must. You will be interacting closely with the project partners.
- Good language skills in English are required. Knowledge of the Swedish language is not a requirement.

Interested candidates are invited to contact Jens Ahrens (jens.ahrens@chalmers.se) directly via email. Please include a CV.

