

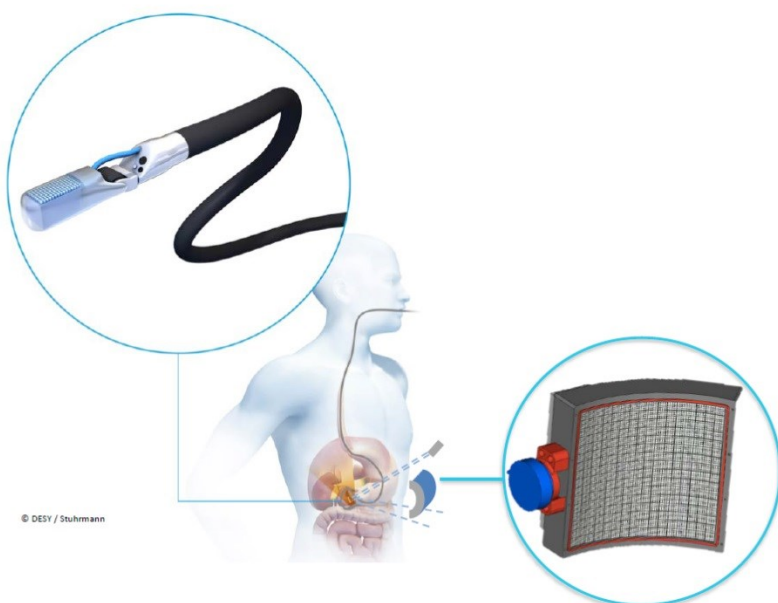


## EndoTOFPET-US: a novel multimodal tool for endoscopy and positron emission tomography.

**Erika Garutti (Univ. Hamburg)**

**Tuesday, 15 April 2014 16:45 h, Sem. R. 2**

The EndoTOFPET-US project aims to jointly exploit Time-Of-Flight Positron Emission Tomography (TOFPET) and ultrasound endoscopy with a multi-modal instrument for diagnostic and therapeutic oncology. The development of two novel detectors is required, a PET head extension for a commercial US endoscope placed close to the region of interest and a PET plate over the patient's abdomen in coincidence with the PET head. Technological challenges include: 1mm image spatial resolution, an unprecedented 200ps Coincidence Time Resolution for enhanced background rejection, online tracking of both detectors and image reconstruction of images with partial volume information from an asymmetric geometry.



The talk will present the results achieved with the first prototype components of the EndoTOFPET-US detector and the first system integration measurements, which demonstrate that the requirements in terms of spatial resolution and coincidence time resolution are at reach.

**Coffee, tea and cookies will be served at 16:30h**

**After the seminar there is a chance for private discussions with the speaker over wine and pretzels**