PhD/Postdoc position in dynamic and interactive light field representations

Work Environment
The Electronics and Informatics department (ETRO) belongs to the Faculty of Engineering Sciences at the Vrije Universiteit Brussel (VUB). ETRO performs research on the representation, processing, transmission and visualization of multidimensional signals. ETRO has built a large international collaboration network with a wide variety of academic institutions, industrial partners and R&D centres, and participates in numerous fundamental, strategic and applied research projects in these domains.

Research Context
Virtual Reality (VR) is receiving an increased interest today for a wide range of applications including entertainment but also healthcare, education, industrial design, scientific visualization etc. This interest is triggered by recent breakthroughs in advanced capturing systems (Nokia OZO, Lytro Immerge), and head-mounted-display (HMD) devices (Oculus Rift, HTC Vive). These emerging visual modalities offer more Degrees of Freedom (DoF) compared to traditional 2D visual content. In that matter, 6DoF can be considered the ultimate immersive experience as the displayed scene or environment can be viewed from any viewpoint and direction in space.

This PhD research topic aims at exploring and developing new representation techniques for light field content with focus on the process of capturing, representing, streaming, rendering and displaying 6DoF content.

Candidate Requirements
Candidates for a PhD position (4 years) should prove strong academic record in engineering, computer science, mathematics or physics. Relevant work and/or a strong interest in computer vision / sensor fusion / data compression is a must. If you are candidate for a postdoc position (2 years), you must already have extensive experience in computer vision and an excellent track record with relevant publications in renowned journals and conferences. In both cases, the selected candidate must have good programming skills (C/C++ and MATLAB). Fluency in English is a must, given the international character of the department. Interested candidates should submit their application, including a motivation letter, a CV, BSc and MSc transcripts of grades, the MSc thesis, the PhD thesis for the postdoc candidates, a list of projects and publications, and the names of two people who could provide references.

CONTACT PERSONS
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