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Lorenz Hruby, PhD

Senior Robotic Perception Engineer @ [Arrival](#)

“Progress and challenges in developing an industrial grade visual SLAM system”

Date	Thursday, August 5 th , 2021
Time	17:00 – 18:00
Location	Online via WebEx (Joining link will be shared to registrants)

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Brief Abstract

Advances in algorithms, cameras and embedded computing hardware have allowed for the first implementations of visual SLAM in smartphones and XR goggles as well as vacuum cleaner robots and autonomous drones. Despite this initial success, visual SLAM remains an active field of research, with challenges ranging from robustness to semantic understanding. We present our recent progress on developing an industrial grade visual SLAM system for autonomous ground robots. Our approach is based on sparse indirect visual SLAM.

Brief Bio



Lorenz Hruby received B.Sc. and M.Sc. degrees in Technical Physics from TU Vienna, Austria, and a M.Sc. degree in Physics from Purdue University, USA. He was a Fulbright scholar at Purdue from 2011-2012. In 2018, he was awarded the Ph.D. for his research in Quantum Simulation at ETH Zurich. From 2018-2019, he initiated and developed visual SLAM algorithms for automotive with his team at IAV GmbH Berlin. Since December 2020, Lorenz leads the Mobile Robotics Perception team at Arrival. His main areas of interest are visual SLAM algorithms, sensor hardware and software development (C++, Python).