

# 6th Summer School on INtelligent signal processing for FrontIER Research and Industry



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## NOVEL HIGH GRADIENT ACCELERATORS: PLASMAS & BEYOND

*Thursday, 26 August 2021 19:45 (45 minutes)*

For electrons and also the protons case

Dr Ralf W. Assmann received his PhD in physics (1995) from the Ludwig Maximilian University, and Max-Planck-Institute for Physics, Munich

Since 2012, as Leading Scientist at DESY Ralph Assmann is working on the development of modern particle accelerators. One focus of his work is the study and development of new accelerator technologies such as plasma acceleration or acceleration with dielectric structures (accelerators on a chip). The objective is to develop particle accelerators suitable for routine use which, due to short particle impulses and their compact size, can achieve economic advantages as well as expand into new fields of application in science, medicine and society.

Ralph Assmann's group is preparing a dedicated accelerator facility at DESY (SINBAD - Short and INovative Bunches and Accelerators at DESY) in international cooperation. The group is also involved in the conception of new accelerator projects and the analysis and advancement of existing accelerator facilities at DESY and the partner institutes. Before Assmann came to DESY in 2012 he worked at the Max Planck Institute in Munich at Stanford in the US and at CERN in Switzerland.

He gained international experience in the development, construction and operation of accelerators as Primary Investigator at the SLAC experiment E-157 for plasma acceleration a subproject of the Large Hadron Collider (LHC), and as machine coordinator for the operation of LHC at CERN.

(Credit, DESY: [https://www.desy.de/about\\_desy/lead\\_scientists/ralph\\_w\\_assmann/index\\_eng.html](https://www.desy.de/about_desy/lead_scientists/ralph_w_assmann/index_eng.html))

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**Session Classification:** INTRODUCTION TO ACCELERATORS