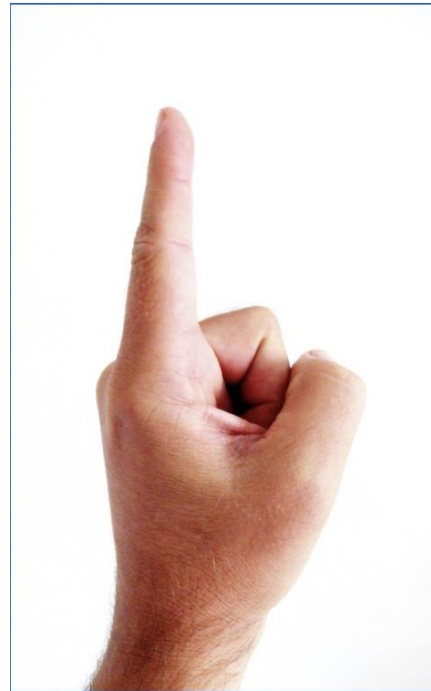
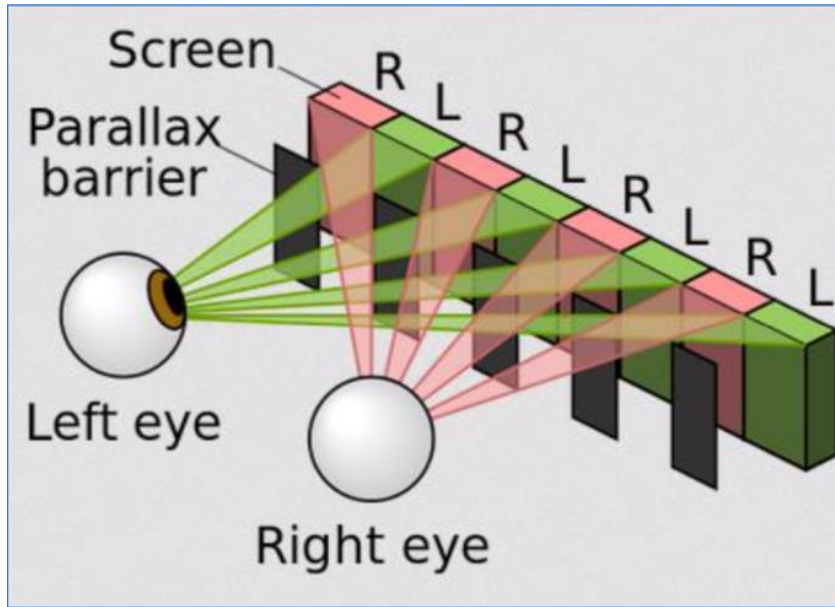


➤ outline

. Integral Imaging of Liquid-Liquid Interface

. CERN Summer School 2023 Project

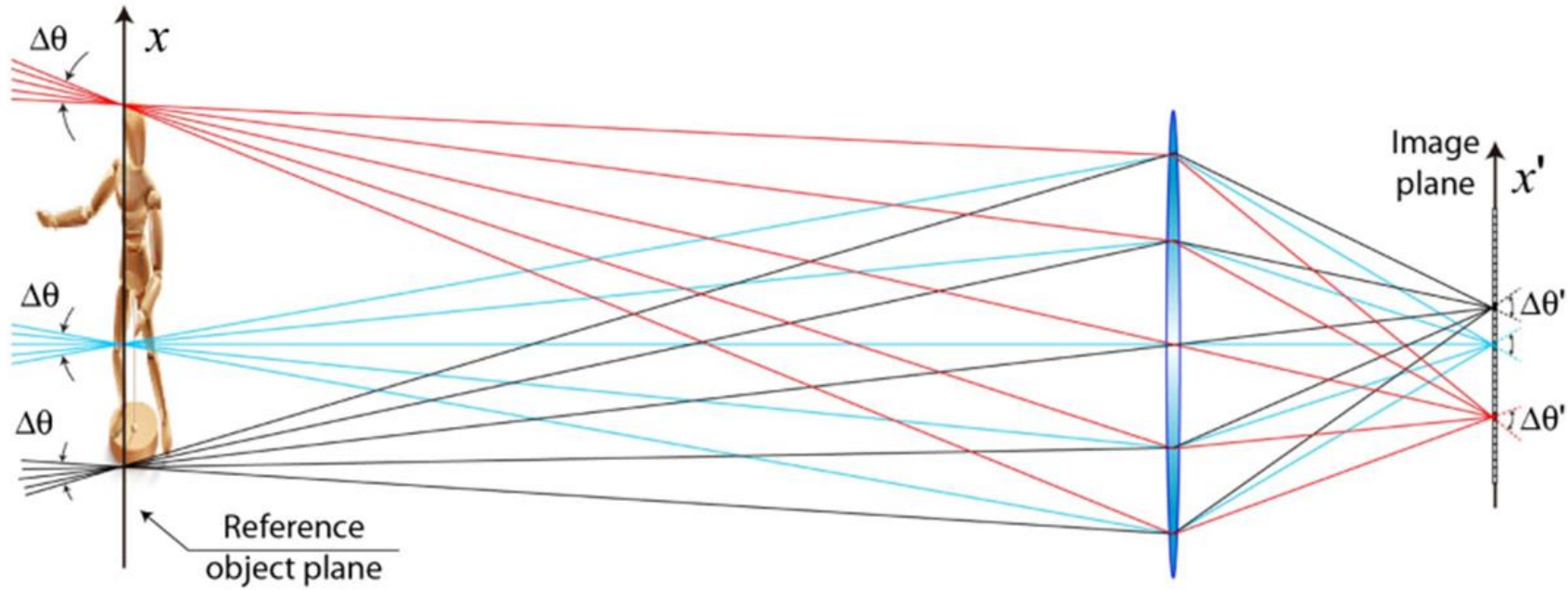
➤ An Overview of Imaging



- 2D Image

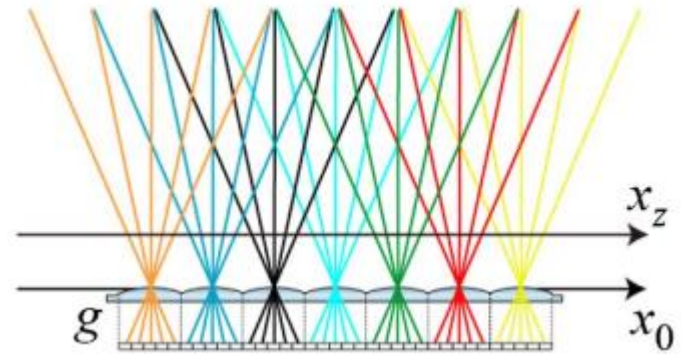
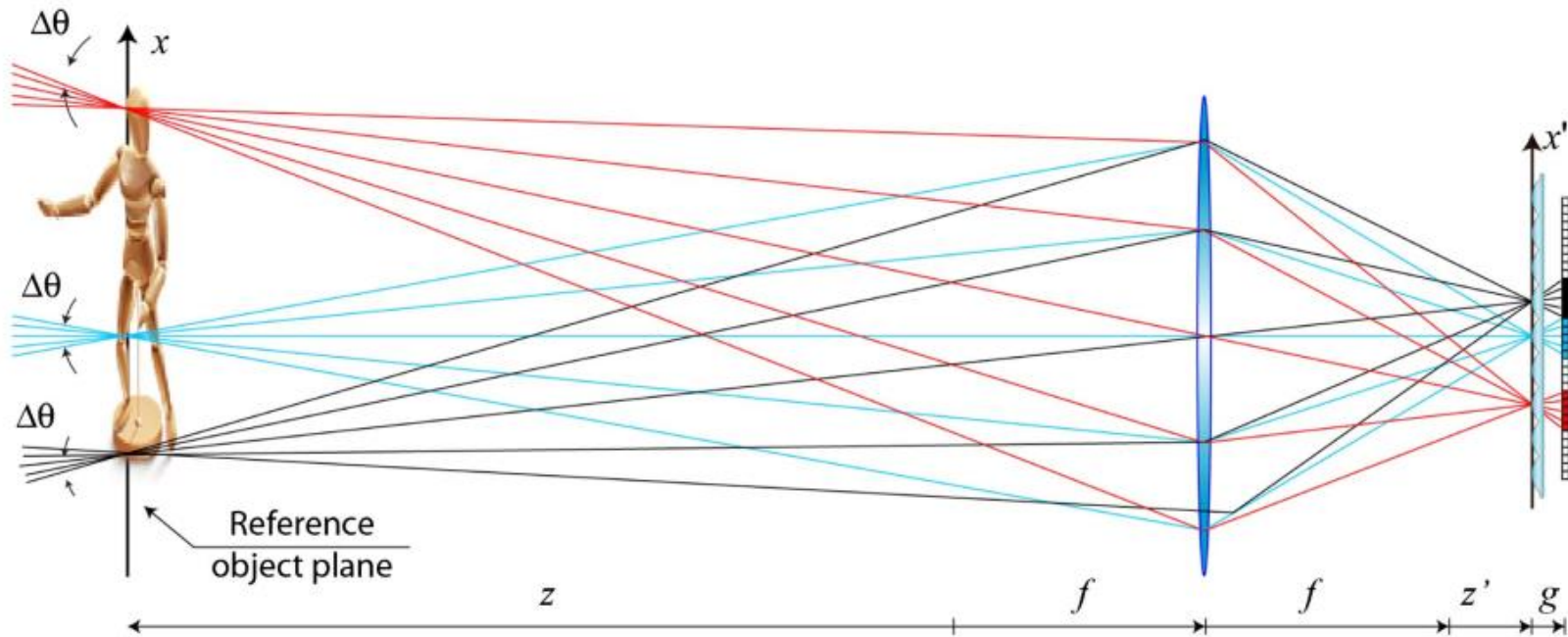
➤ Integral Imaging

- Lippman Method



Gabriel Lippmann
1845 – 1921

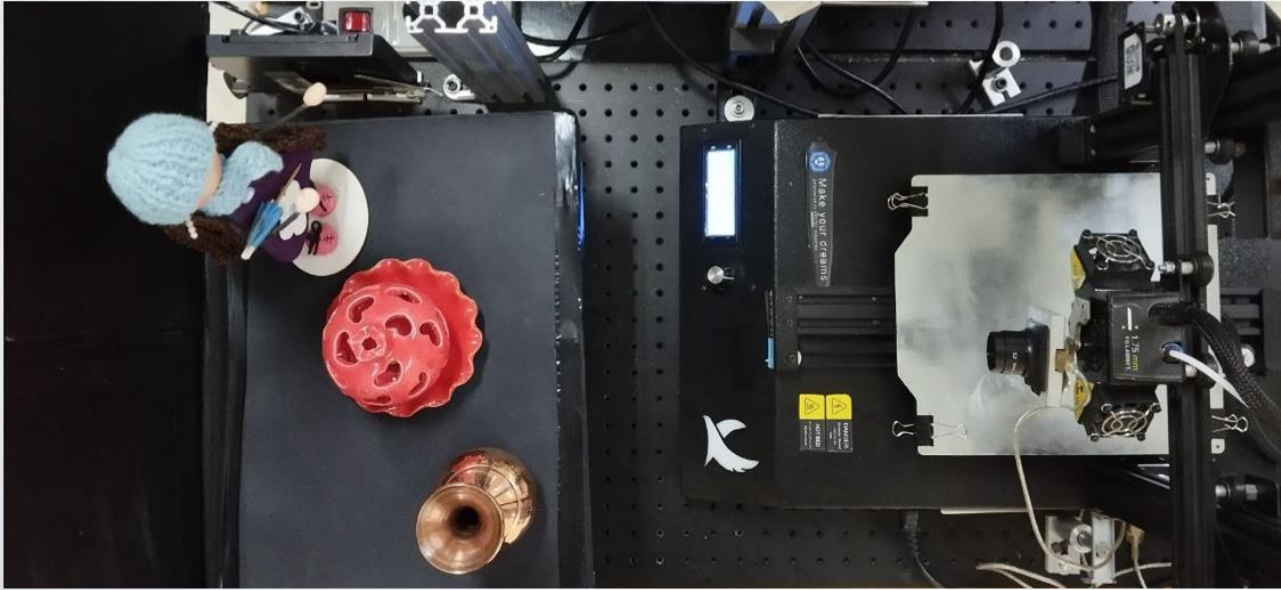
➤ Integral Imaging



■ M. M. Corral, B. Javidi, Adv. Opt. Phot (2018)

➤ Moving Camera Method

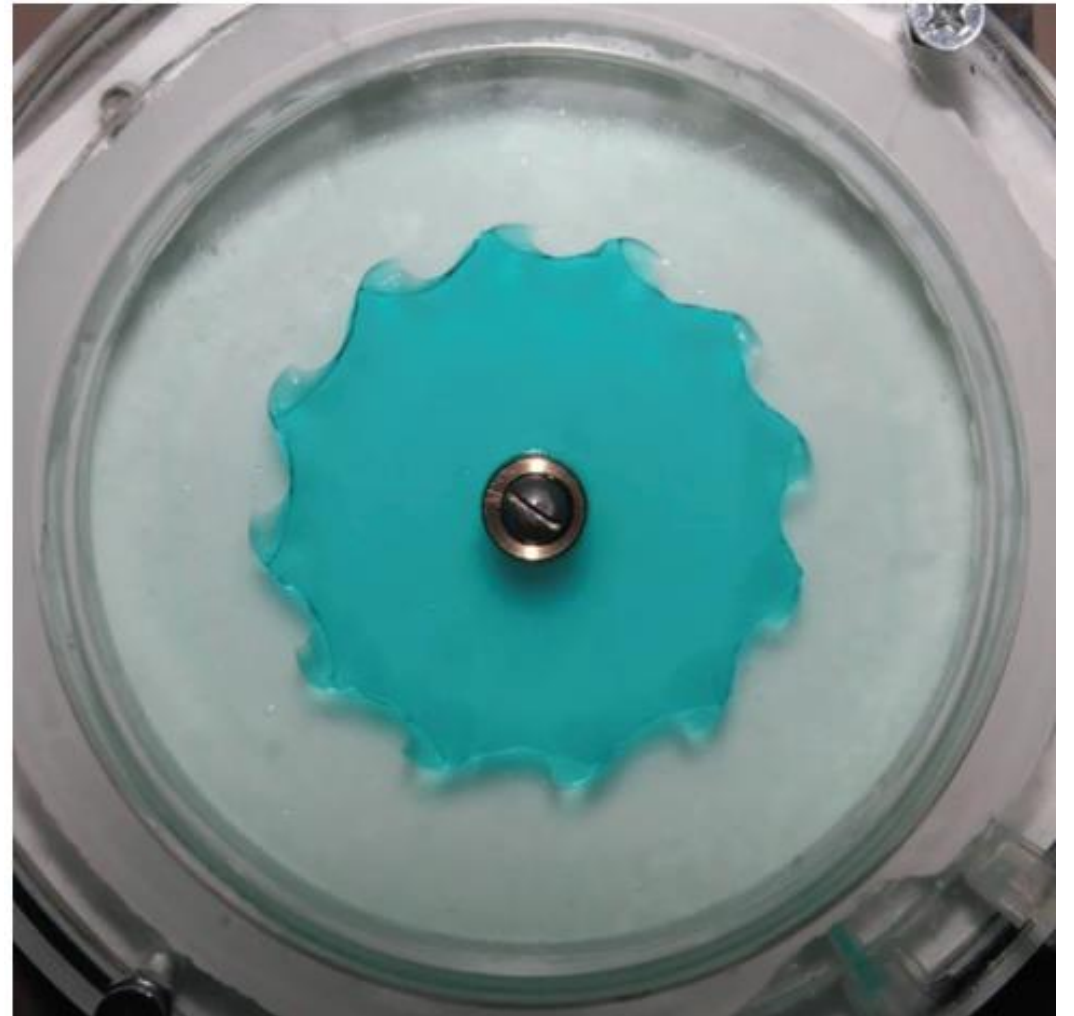
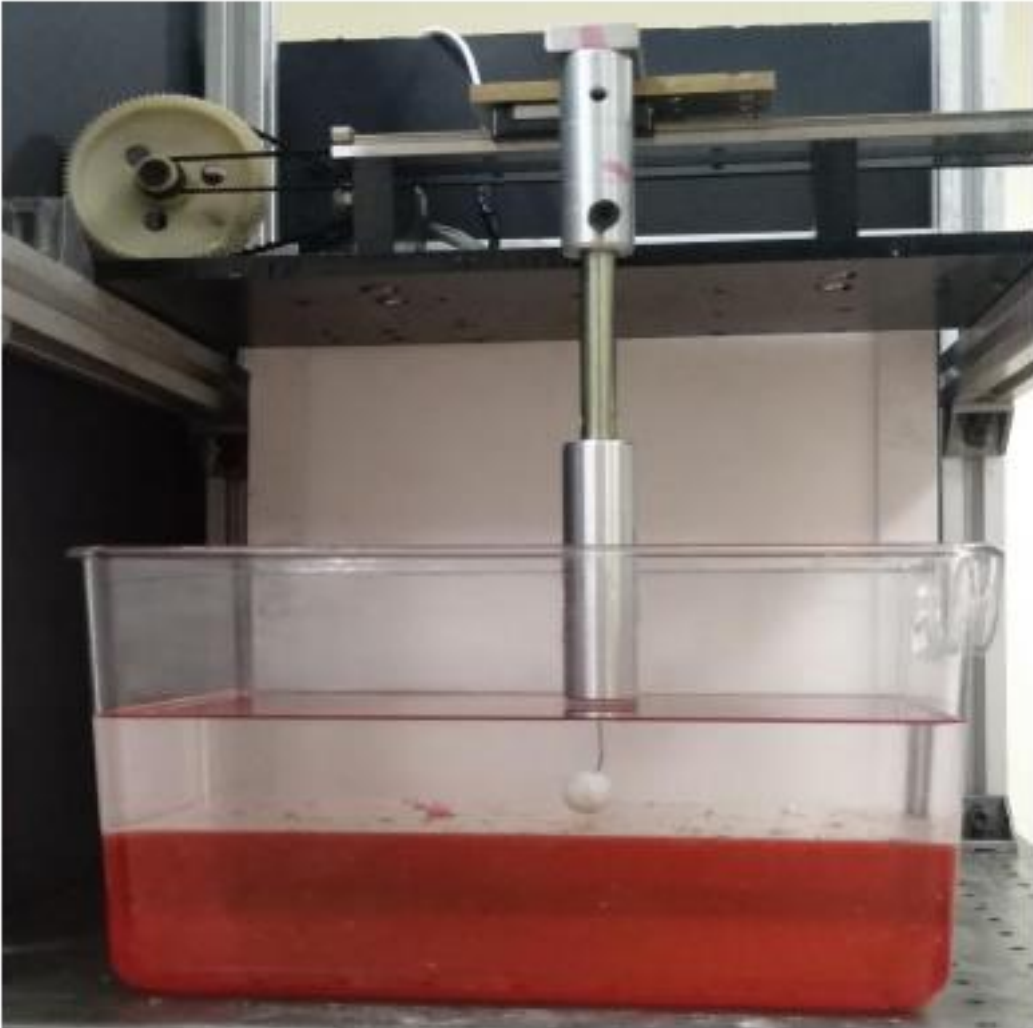
- Using a digital camera on a movable platform



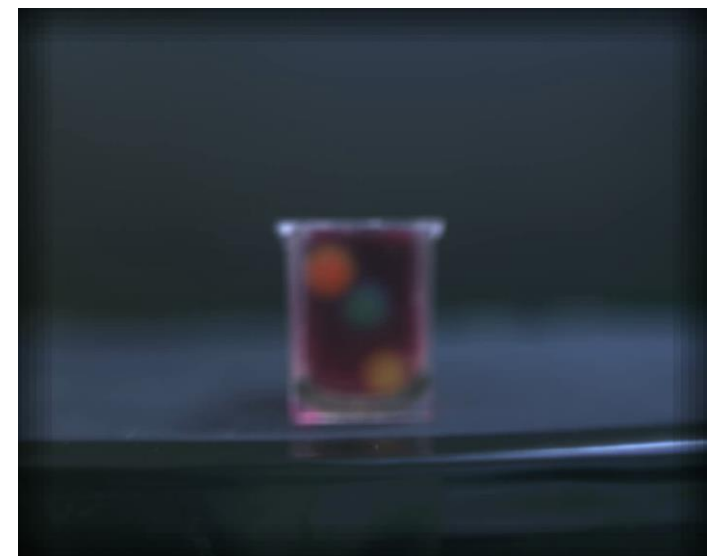
➤ Experimental Works



➤ Liquid-liquid Interface



➤ Experimental Works



➤ Future work

- 3D imaging of liquid-liquid Interface for large-scale samples.
- 3D imaging of liquid-liquid Interface by Micro Lens Array (MLA).
- Study various phenomena on the boundary between two liquids.



Multi-Dimensional Imaging and Detection Laboratory

About Us

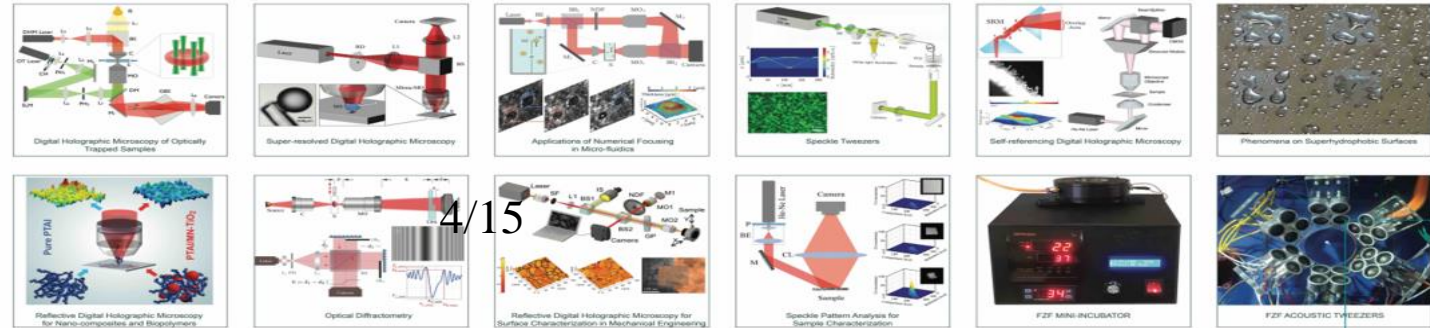
MDID investigates 3D and real-time optical imaging approaches and technologies, mostly in micro scale.

Major research directions:

1. Advancing and improving the imaging methodologies.
2. Integration of imaging techniques with each other and with other optics and acoustics based methods, toward multi-modal imaging and enhanced detection.
3. Applications to various phenomena in soft matter e.g. in biology samples and microfluidics, and metallic specimens.
4. Developing products and systems for diverse applications.

We are also interested in investigation of various interesting phenomena in soft matter, such as active matter translocation and collective motion, droplet circuits, liquid-liquid interfaces, binary mixtures, microrheology, etc.

Featured Researches



Contact

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People



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CERN Summer School

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Supervisor: Joos Schoowater

August 2023

➤ CERN Summer School

- Shift at Alpha laboratory
- Project

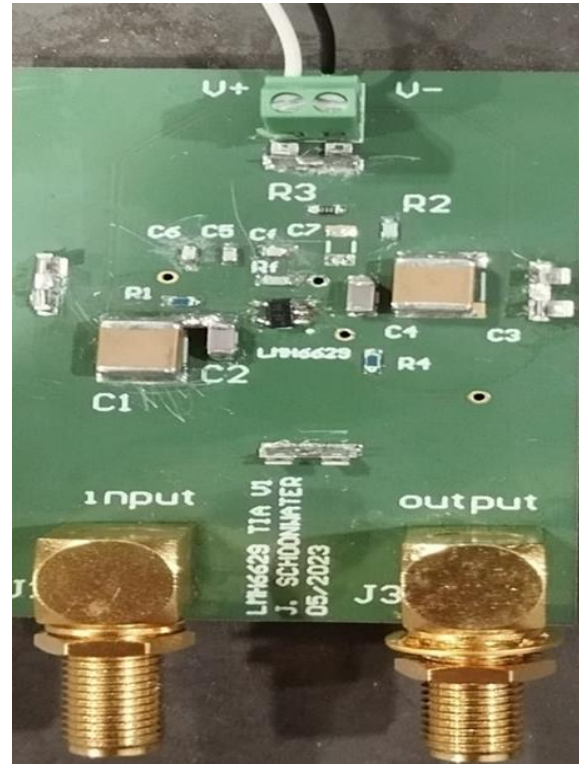
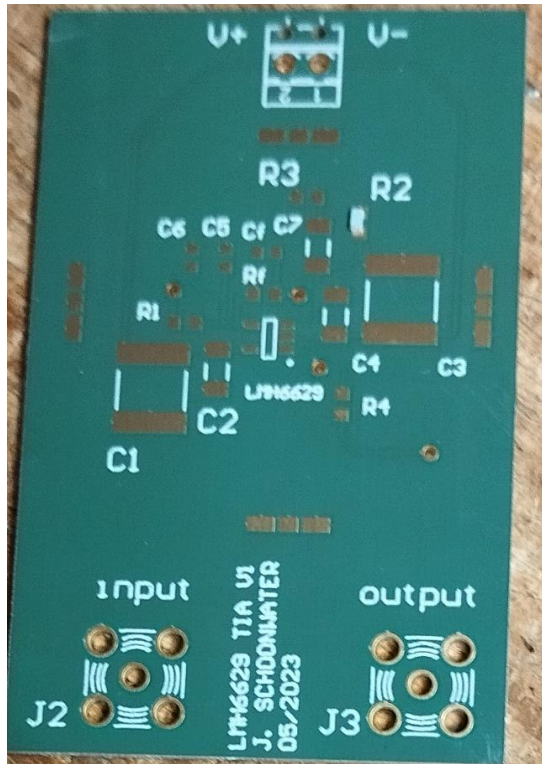
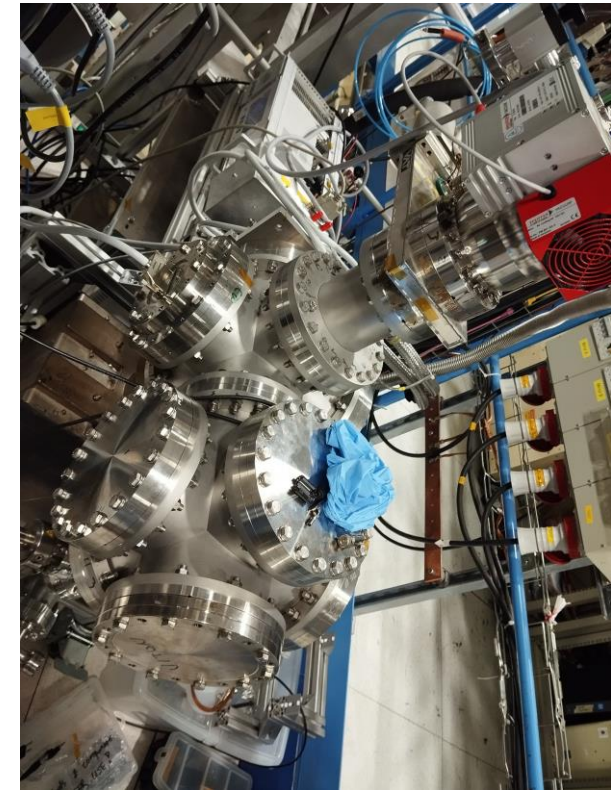


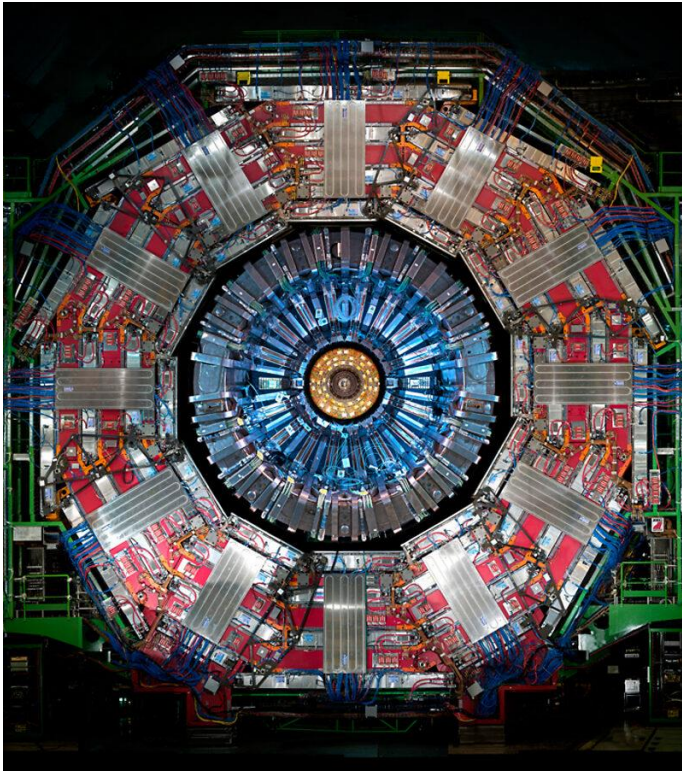
Figure 1: LMH6629 Amplifier



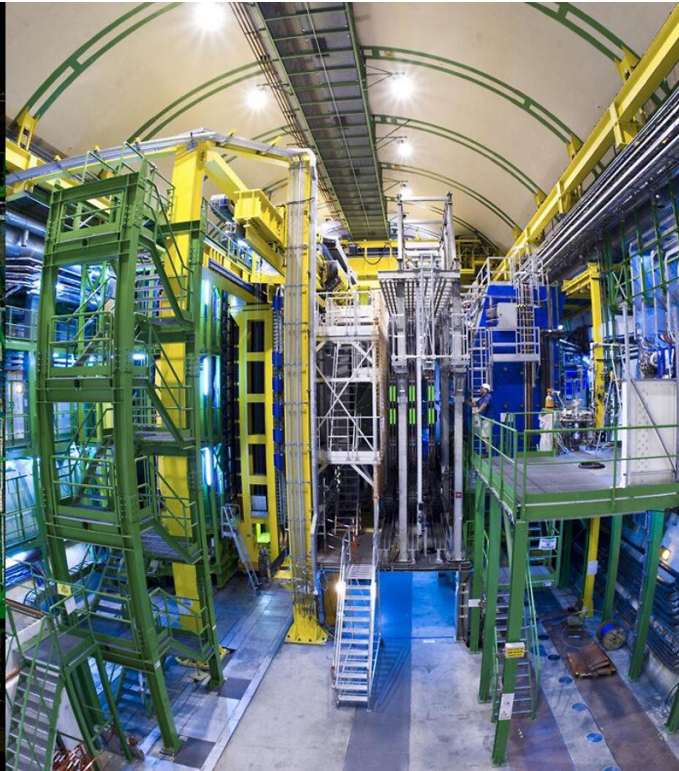
silicon multiplier detector

➤ CERN Summer School

- Visits and Fun



CMS



LHC



ATLAS





Thank You for Your Attention