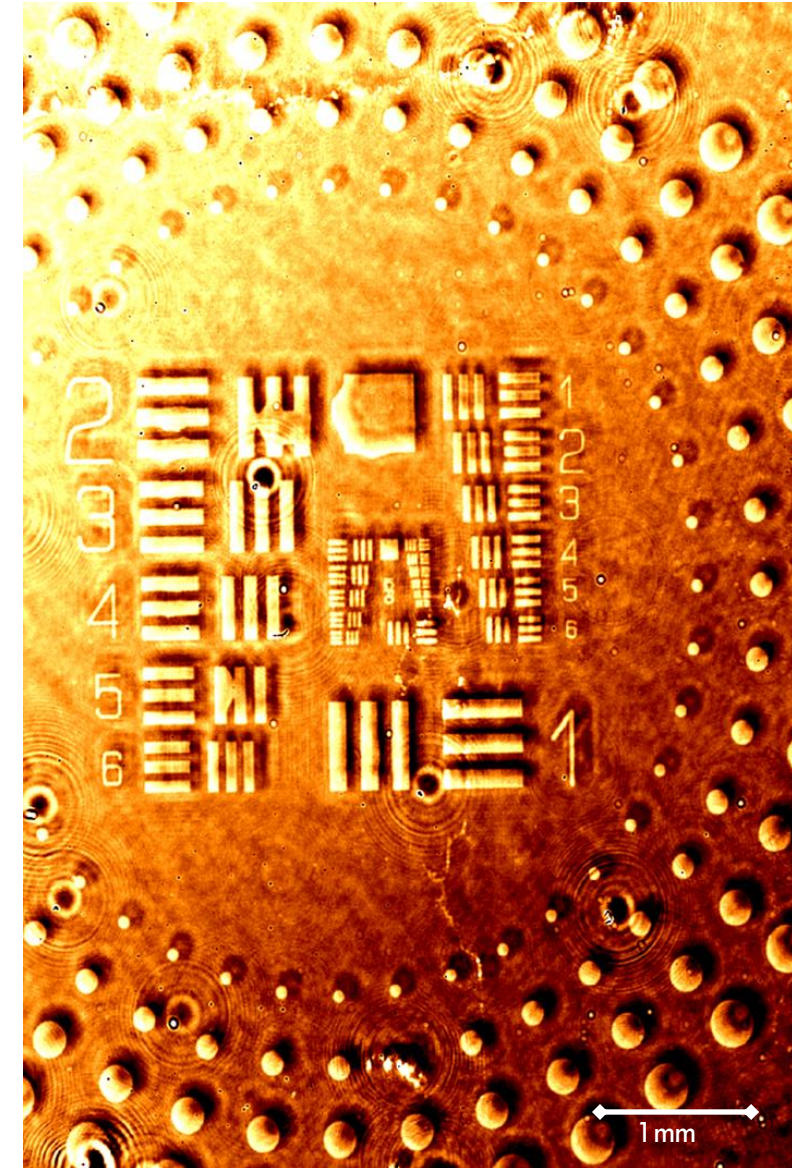


Lens-free interferometric microscope (LIM)

Highly sensitive, compact and in-expensive imaging system for large areas



10nm thick features in silica

Who are we?

core team



Dr. Luc Dümpelmann



Dr. Roland Terborg



Prof. Valerio Pruneri

ICFO at a glance



- ✦ Founded in 2002
- ✦ 400+ People
- ✦ 25 Research Teams
- ✦ 14000 m²
- ✦ 60 Research labs
- ✦ Research, Grad Education, KTT



- 17000+ citations/year
- 200+ PhD graduates
- 50+ Industrial projects
- 37 ERC Grants
- 8 spin-off companies

ICFO Launchpad

KTT

ICFO's bridge to all types of industries, hospitals and corporations

A space and support structure which allows innovative ideas to develop into new technology spin-offs

Spin-offs



➔ *EPIC Online Technology Meeting on Biosensors, 11.05.2020, (2:04:04) Roland Terborg, <https://www.youtube.com/watch?v=jFG8jjndrfI>*

incubated at **ICFO**[®]

What do we do?

Compact

Portable / integrable

Sensitive

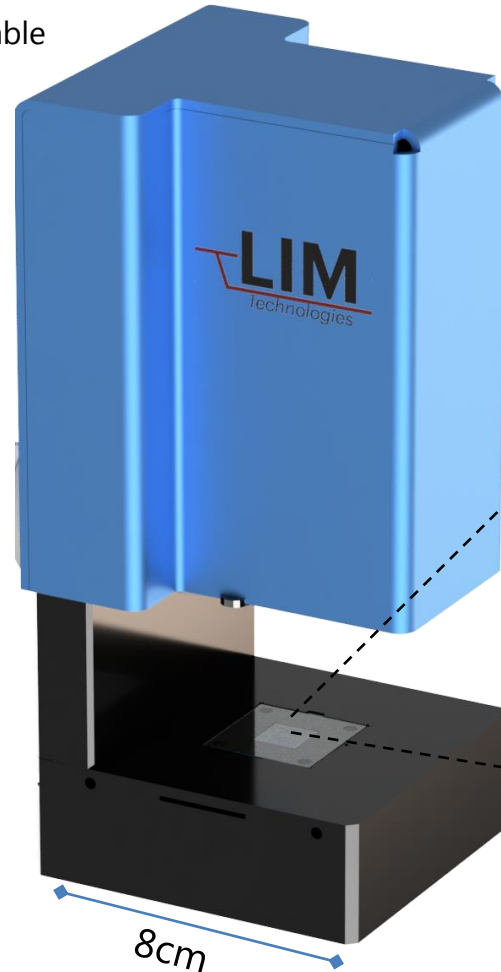
Subnanometer

Versatile

Transmission & reflection

Cost-efficient

Standard components

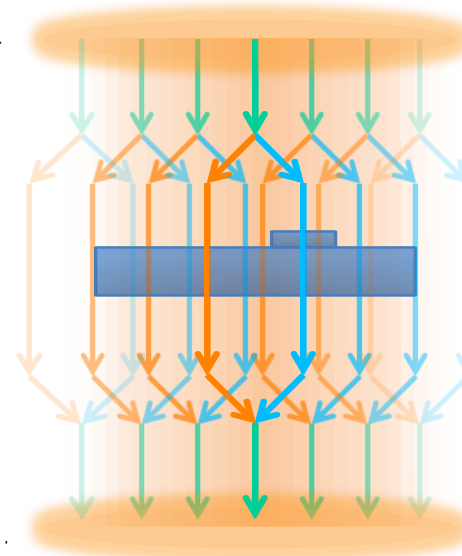


Large area / volume

Field of view >35mm²

Unique technology

Patented proprietary interferometric technology

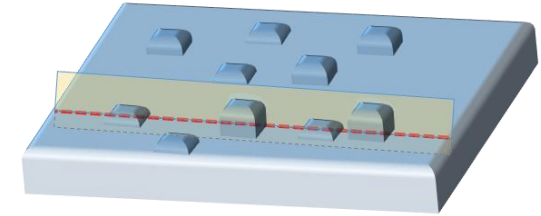


Stable / robust

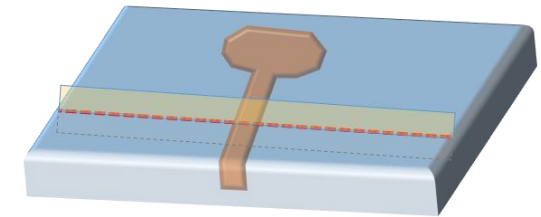
Differential measurement

Types of measurement

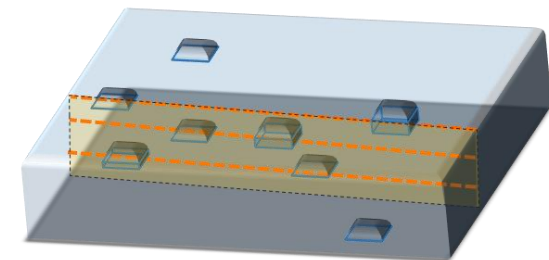
Structures on surface



Change of material



Change geometry & material

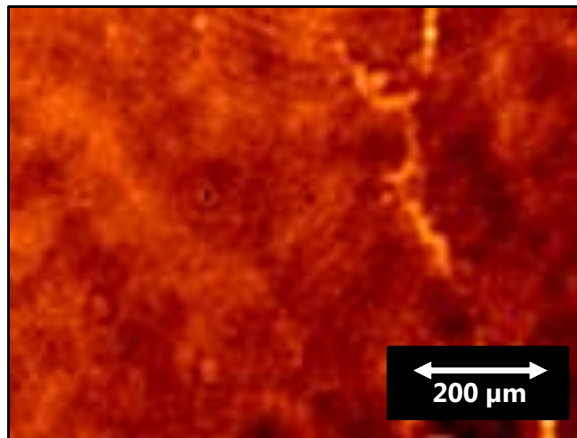


What do we offer?

Detection of **nano- and micrometric** features via **quantitative phase imaging** for:

Quality control

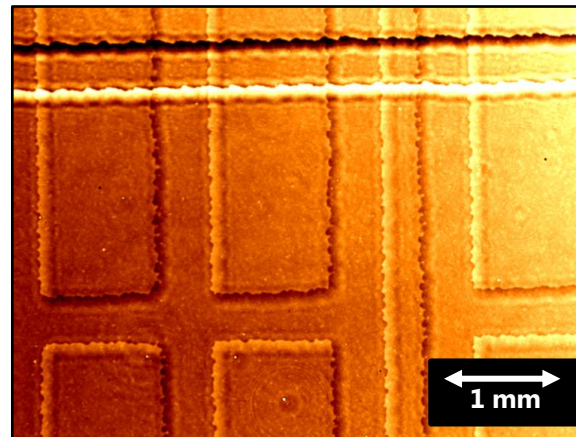
Particulate and defect detection
in transparent material



*Rapid and large area
Completely transparent*

Material science

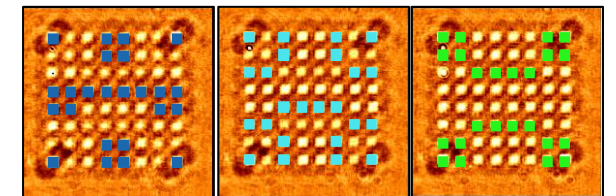
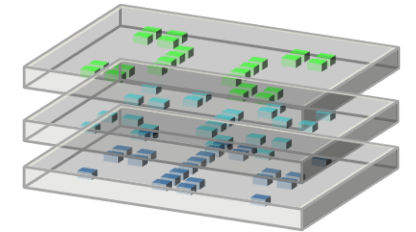
Analysis of refractive index and
defects in transparent electronics



*Characterization of refractive index
Large depth of field*

Feature detection

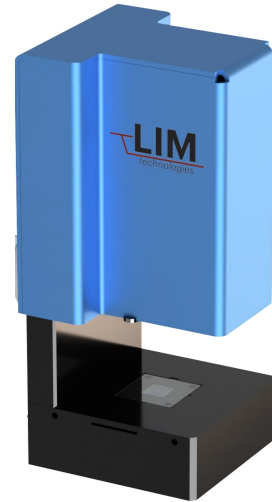
Depth information of
structured samples



*Localization in 3D
Characterization of refractive index*

What are we looking for?

**Partners /
collaborators**



**Users /
customers**

*Standalone imager
In-line inspection tool
Add-on for existing platforms*

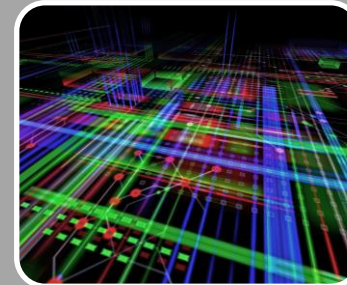
We provide:
Highly sensitive, compact and in-expensive
imaging systems for large areas

Potential application areas



Optics

- High quality optical material
- Ophthalmic
- Advanced optics



Electronics

- Transparent electronics
- Large area displays
- Semiconductors



Infrastructures

- Communications
- Photovoltaics
- Smart windows