

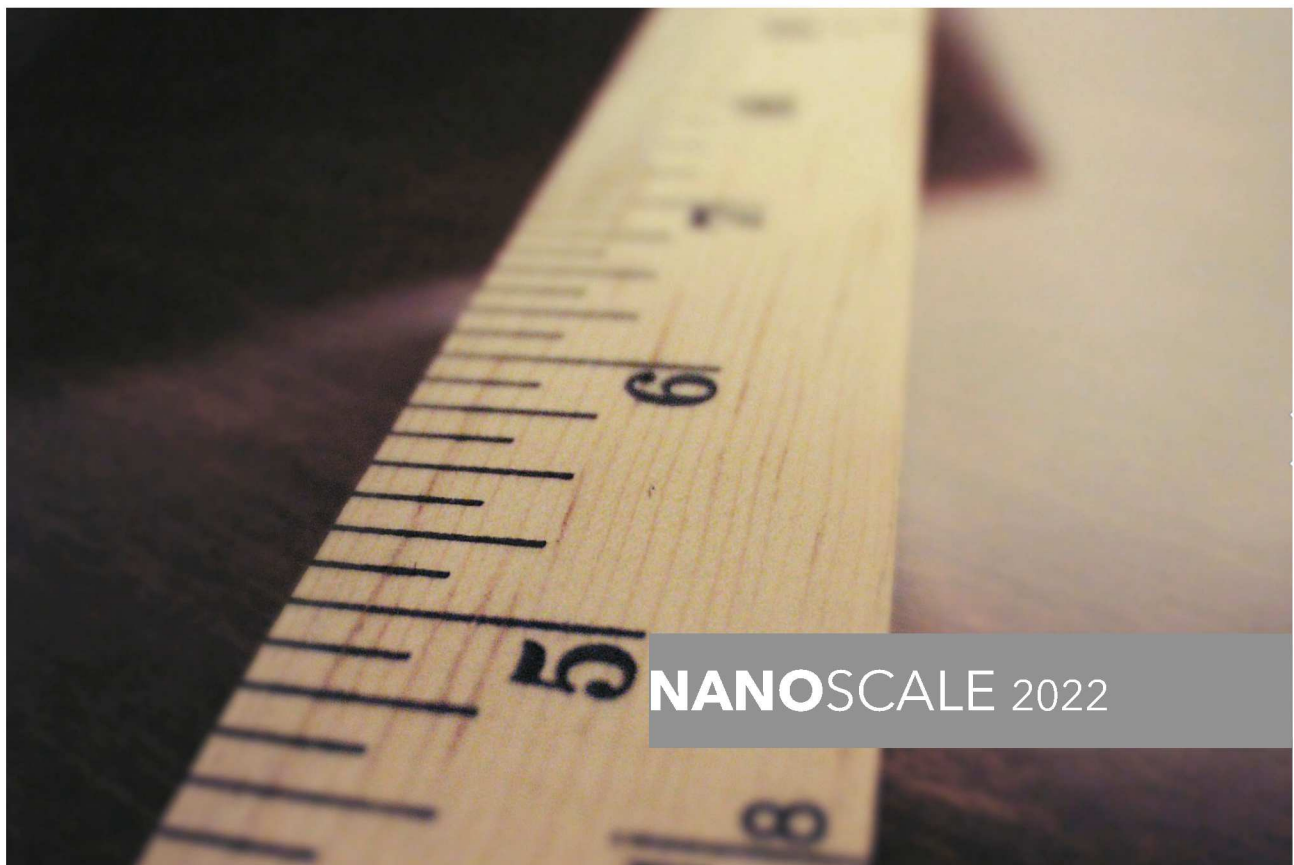
# NANOSCALE 2022

co-organisers

**Martin OHEIM**, SPPIN, CNRS, Université de Paris, Paris, France

**Adi SALOMON**, Department of Chemistry & BINA Nanocenter, Bar-Ilan University, Ramat-Gan, Israel

April 6-8, 2022 Université de Paris, 6th arrondissement de Paris, France



## NANOSCALE2022

**THE CONTEXT.** After more than 20 years of nano-sciences and -technology and nano-devices being present in almost every part of science, and even our day-life, a reliable measurement of nanometric distances along the optical axis of a microscope, a spectrometer or other optical devices is still missing.

The EU-funded NANOSCALE project (<https://nanoscale.sppin.fr>), a French-Israeli collaboration between SPPIN and BINA aims at filling this gap. Based on a patented nanometric sandwich, NANOSCALE has provided a unique multi-layered calibration slide for surface fluorescence, together with a dedicated software analysis tool. The nano-patterned slide features thin layers of non-fluorescent spacer, fluorescent and a non-fluorescent capping layer, all with the refractive index close to that of a living cell. It permits, for non-professional user, a calibration of fluorescence in terms of axial distance, a key requirement for quantitative near-surface optical imaging, spectroscopy and sensing.

**OBJECTIVES.** The NANOSCALE2022 symposium will provide an update on the current state of research, bring together a vibrant community of academics and industry and trigger future collaborations and innovations. It also aims at opening the community and inciting follow-up grant applications, potentially in new geometries.

Through multiple thematic sessions, we will explore the bases, current state and applications of surface fluorescence and related techniques and we will outreach to communities not yet targeted, including pharmacology/toxicology, environmental science, as well as the national and European institutes of standards.

**THE VENUE.** The workshop will take place on the premises of Université de Paris (UP) in the 6th arrondissement of Paris. UP is the second-biggest French research university founded in 2020 through the fusion of Paris Descartes University, Paris Diderot University and the Institut du Globe.

### CONFIRMED SPEAKERS:

Frederique de Fornel (Dijon) **keynote**

Maia Brunstein (Paris); Nicolas Demaurex (Genève); Thierry Galli (Paris); Andreas Guse (Hamburg); Yuval Garini (Haifa); Rodolphe Jaffiol (Troyes); Gerhard Schütz (Vienna); Kaitlin Szederkenyi (Toronto); Chris Yip (Toronto)

### SCIENTIFIC COMMITTEE:

**Martin Oheim, Marc Guillon, Carine Julien (Paris)**

**Adi Salomon, Yossi Abulafia, Racheli Ron (Ramat-Gan)**

**CONTACT.** [nanoscale@sppin.fr](mailto:nanoscale@sppin.fr)

## Tentative programme

### Wednesday 6 April 2022

19h00 –22h00 – buffet dîner and popular talk

### Thursday 7 April 2022

9h30 – accueil, café & croissants, introductory lecture (MO)

10h00–12h00 – Session 1: 4 oral presentations

12h00–14h00 – lunch and poster session 1

14h00–16h00 – Session 2: 4 oral presentations

16h00–17h00 – coffee break and discussion

17h00–18h30 – student flash talks

18h30–20h00 – cocktail (and brainstorming in small committee)

### Friday 8 April 2022

9h00 – café & croissants, wrap-up of day 1 in groups

9h30 – Session 3: 4 oral presentations

11h30–13h30 – poster session 2 and lunch traiteur

13h30 – farewell for external participants

13h30–15h00 – hands-on experiments and lab visits

15h00– – brainstorming in small committee (grants, applications, collaborations)