

Welcome to the IVNC 2020 Virtual Conference

Dear Colleagues,

On behalf of the International Steering Committee (ISC) and the 2020 IVNC Committees, we are happy to welcome all of you to the 33rd IVNC, virtual version. As you all know this format was dictated by the exceptional circumstances of the world health crisis. The motivations to hold a virtual conference instead of simply postponing are firstly to permit young researchers to still showcase their work, particularly at the closing stages of their Ph.Ds. and postdoctoral fellowships, and secondly to maintain a certain level of the scientific exchanges that are essential to the dynamism that this domain is currently enjoying.

This Technical Digest contains 44 Extended Abstracts spanning all the main topics treated by the IVNC for electrons sources and their applications in the vacuum: applications, emitters, fundamental studies, theory and vacuum devices. The program is reduced compared to a usual IVNC as many potential submissions were held back by the crisis and because authors prefer to submit in 2021. Also the original invited speakers have been asked to present in 2021 in Lyon so this conference will have a more down-to-earth, right out of the lab workshop feeling which we hope will also please the participants.

The conference will be held over two days based on Lyon time. It will consist of defined sessions that group 10 minute pre-recorded talks, all drawn from the submitted short abstracts, followed each by 5 minute live question periods. As well, two poster sessions and accompanying two min flash presentations are planned. The posters, and the video presentations, are to be consultable at least during the conference days and the attendees will be encouraged to ask questions in a public forum and in private. The posters are available to participants in a separate pdf file as a simple way for participants to access them particularly during the poster session. The platform to be used for the conference is Webex.

The breakdown by scientific category of the accepted orals and posters are:

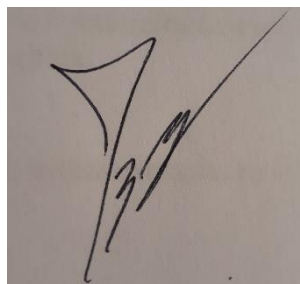
- Applications (Xrays and other) – (30,6P).
- Emitters (nano and novel) - (40,9P).
- Fundamentals (photon electron interactions, beam physics, spectroscopies, electron microscopies) - (60,2P).
- FE Theory (classic tunneling, ab initio, modeling) - (40,7P).
- Vacuum micro/nano devices - (40,6P).

There will be 21 orals films and 26 flash presentations spread over the two days. One sees quite an even spread over the defined subjects that span fundamental to applied science, a sign of a healthy, forward going, scientific community.

Conference hours: This cannot be satisfactory for many of you because of the different time zones. Taking into account that the longest time gap is over the pacific ocean we have chosen to start at 14:30 hrs Lyon time. This means: 14:30 Germany, 8:30 New York, 5:30 California-Vancouver, 21:30 Tokyo, 20:30 Beijing, 12:30 Moscow.

Looking forward to a fulfilling conference and interesting scientific exchanges ... and of course, your full participation in the normal format 34th IVNC 2021 conference in Lyon,

Stephen Purcell and Jean-Paul Mazellier,



IVNC 2020 and 2021 Chairmen.
Lyon and Paris, France, July 2020.