

OPTIQUE Normandie 2024 will be a great success!

More than 620 attendees

01 - 05 July 2024 – Rouen – France

The optics and photonics community responded massively to calls for participation during this first stage. Focus on the young Club, the members of the industrial collective and of course scientific and technical communication.

Congratulations to the session chairs of OPTIQUE Normandie 2024 for successfully motivating large community for this new edition of the largest francophone congress of optics and photonics. We have received 476 abstracts which illustrate the dynamism of French research.

Round-Table discussion on 'Science and Society' organized by the SFO Young Researchers Club

PhD students and post-doctoral researchers are more than welcome in OPTIQUE Normandie 2024

Join us for an exhilarating discussion that promises to ignite your curiosity and broaden your perspective on the intricate interplay between science, society, and communication.

The SFO Young Researchers Club represented by Pierre BALAGE (CELIA, Bordeaux) & Paul JIMENEZ (INL, Lyon) is at the forefront of organizing a dynamic round table discussion on 'Science and Society', exploring hot questions such as the perception and impact of science in society, the challenges hindering the dissemination of ideas, the role of social media, ... and featuring prominent figures in the field:

- **Etienne KLEIN**
(Research Director at CEA - LARSIM)
- **Anne-Marie LAGRANGE**
(Observatoire de Paris - CNRS)
- **Rafaële BRILLAUD**
(Educational Manager, ES Journalism, Lille)



We thank the participation of our collective members in the OPTIQUE Normandie industrial exhibition. It will be a pleasure to meet you again.



Join us on the official congress website
<https://www.sfoptique.org/>



LIGHTBOX, THE PHOTONICS EDUCATIONAL KIT

From simple wonder about the properties of light to training, the LightBox kit continues its journey by being deployed on different continents. The LightBox is a partnership between the SFO educational Commission and the AtoutSciences Association and is labeled Année de la physique 2023-2024 and International Day of Light.



Join us on the official LightBox website
<https://www.sfoptique.org/>



EOSAM 2024 moves to stunning Napoli

If you didn't submit yet, not to worry, submissions are still accepted for oral or poster presentations for the following topical meetings and sessions: Focused Sessions, EU Project Session, TOM1- Silicon Photonics and integrated optics, TOM2- Frontiers in Optical Metrology, TOM3- Optical System Design, Tolerancing and Manufacturing, TOM4- BioPhotonics and biosensors, TOM5- Nanophotonics, TOM6- Optical Materials, TOM7- Ultrafast Phenomena, TOM8- Nonlinear and Quantum Optics, TOM9- Opto-electronics, Nanotechnologies & Microsystems, TOM10- Applications of Optics and Photonics.

Visit <https://www.europeanoptics.org/events/eos/eosam2024.html>

Visit the website to join and engage with leading minds and experience the forefront of optical sciences!

See you in Napoli!

The poster for EOSAM 2024, held from 9-13 September 2024 in Naples, Italy. It features the EOSAM logo and text: "JOIN THIS MAJOR INTERNATIONAL CONFERENCE AND EXHIBITION EOSAM SUBMISSION STILL OPEN". It also mentions "Early bird registration is open until 30 June". Sponsors listed include AMERICAN OPTIC, AeroODE, and TOPTICA. A QR code is provided for more information. The poster also lists EOS National Society members.

VI INTERNATIONAL CONFERENCE ON APPLICATIONS OF OPTICS AND PHOTONICS, IN PORTUGAL

AOP2024 is organized by the Portuguese Society for Optics & Photonics (SPOF), at the University of Aveiro, Portugal, 16-19 July 2024.
<https://aop2024.org/>

UNITED KINGDOM : PHOTON 2024

This is the twelfth multi-disciplinary conference in a biennial series that started in 2002. It is jointly organized by the Institute of Physics (IOP). It will be held in Swansea, Wales, from 3 to 6 September 2024.
<https://www.photon.org.uk/>

For more information, visit the European Optical Society, EOS, website <https://www.europeanoptics.org/> or contact our Executive Director, Elina Koistinen: elina@europeanoptics.org. Become a member of one of our National Optical Societies (NOS), and you will also become a member of EOS. Discover the benefits that EOS offers and learn how to strengthen your relationships with your peers!

Germany: 125th Annual Meeting

organized by DGaO at Aachen, May 21-24 2024. It will focus on different key topics from applied optics.

<https://dgao.de/jahrestagung/>

Optics & Photonics in Finland

OPD is an annual central event in Finland. OPD-2024 will be held at Scandic Marina Congress Center, 28 – 30 May 2024, Helsinki, Finland.

<https://www.photonics.fi/opd2024/>

Italy: National School of Optical Biosensors & Biophotonics

BIO&B is the fifth edition taking place in the charming city of Lecce, Italy, on 3-7 June 2024. It is organized by SIOF to promote the education and collaboration of young researchers.

<https://www.scuola-biob.it/>

Italian Conference on Optics and Photonics

ICOP will be held in Florence on 17 - 19 June 2024. It aims to bring together researchers from Italy and worldwide, networking & exchanging their last developments in a stimulating and multidisciplinary forum.

<https://www.icop2024.it/>

France OPTIQUE Normandie

The Société Française d'Optique, SFO, organizes the flagship congress OPTIQUE that is the largest French-speaking international congress, on 1-5 July 2024, in Rouen.

<https://www.sfoptique.org/>

100%

of Institut d'Optique's continuing education trainees were satisfied with their training in 2023. In 2023, Institut d'Optique's continuing education program counted also : more than **600 hours of training**, **66 experts** from industry and academia providing theoretical and experimental trainings, more than **70 experimental set-ups**.

CONTINUING EDUCATION AGENDA :

■ **SC10 - Acquisition, perception and image processing**
May 21 to May 23, 2024

■ **CO6 - Design of optical systems based on off-the-shelf components with Zemax®**
May 27 to May 28 and June 4 to June 5, 2024

■ **CO₂VIS - Optical design with Zemax®- OpticStudio - Advanced**
May 28 to May 30, 2024

■ **EF5 - Colorimetry**
May 30 to May 31, 2024

■ **CO3 - Optical Design with CodeV®**
June 3 to June 7, 2024

■ **SC3 - Understand laser sources**
June 3 to June 7, 2024

■ **SC5 - Optical fibers and applications**
from June 10 to June 14, 2024

■ **SC1 - Optomechanics**
June 11 to June 14, 2024

CONTACT

Clémentine Bouyé,
Head of communication
clementine.bouye
@institutoptique.fr

A fine harvest for Institut d'Optique's student entrepreneurs

Students in the Institut d'Optique's Filière Innovation Entrepreneur (FIE)* program have a lot to be proud of. This spring, the young innovative projects leaders have been taking part in pitch competitions, and the prizes were pouring in!



© photo credits : Institut d'Optique

CorneaSight team and their coach after winning

In Bordeaux, the CorneaSight project won the Innovation category of the Kedge pitch competition. CorneaSight is developing a tool for analyzing the transparency of the cornea. And the Flowlume project won the Advanced Project category at Pepitch Day Paris Saclay. Flowlume is developing a blood vessel imaging system to improve diabetic foot ulcer diagnosis. The juries recognized the high quality of the FIE projects. Congratulations to

the winners, and we wish you every success in developing your projects.

* FIE is a 2-year education program where engineering students from Institut d'Optique have the opportunity to develop an entrepreneurial project.

TWO FIE ALUMNI IN THE FORBES "30 UNDER 30" RANKING

Manon Loustau and Tinou Seguin, alumni from the FIE program and cofounders of Libu (Talence), have been named in the Forbes "30 under 30" Europe 2024 list - in the "industry and manufacturing" category. These "under 30" lists highlight innovative and influential young entrepreneurs in various fields of industry. In the meantime, Libu announces a €1 million fundraising.

Manon and Tinou created Libu in 2019. Libu develops LED lighting solutions that evolve during the day, as the sun does, to give people's biological clocks the right light at the right time. The patented technology is based on a biomimetic system that reproduces the changes in intensity, spectrum and colour temperature of the 24-hour circadian cycle. The body re-synchronizes with its internal biological rhythm. The benefits, demonstrated in a recent scientific study, are numerous: a reduction of 25% in stress, and an improvement in mood and sleep quality.

This fundraising will enable the company to accelerate its development along 3 priority axes:

- Expanding its product range, to extend the uses of the Libu solution to the industrial sector,
- An increase in industrial output,
- Strengthening its team.

A great dynamic for this young company. Stay tuned!



Tinou Seguin and Manon Loustau, co-founders of Libu

© Photo credits: Libu

European Conference on Quantum Technologies for Defence

The European Commission, Polish Technological Platform on Photonics, OpTecBB, ALPHA-RLH and Ukrainian Cluster Alliance organised the European Conference "Quantum Technologies for Defence: Current and future capabilities" on 13-14 March 2024 in Warsaw, Poland. The event took place in the framework of the European Network of Defence-related Regions.

The conference brought together 150 experts from 17 European countries, representing 125 companies, research, academic and government institutions as well as armed forces, to exchange on the state of the art of Quantum science and technologies in the European defence sector.

The event included presentations on defence applications of quantum sensing, communication and computation (Quantum Warfare), EU and national activities in the field, as well as workshops, pitches and matchmaking.

The speakers talked about their fundamental research or their real world use cases and the urgent need for operational Quantum innovative systems to be tested within the Ukrainian war context.



PLI Conferences 2024

The event "PLI Conferences", organized by the Club Laser & Procédés, ALPhANOV, ALPhA-RLH, Amplitude and Lasea France, will be held from June 18 to 19, 2024 in Bordeaux (France). "PLI Conferences" is the unmissable event dedicated to industrial laser processes and their advances. An overview of the latest innovations in the field is presented through a rich program of expert conferences. 10 internationally renowned speakers are invited, coming from Japan, China, Germany, Spain, Scotland, and Czech Republic. The 2024 edition will highlight 7 key themes: laser micromachining, laser welding, laser additive manufacturing, large-scale manufacturing, process control & monitoring, machine learning & AI and laser safety. The program also includes an exhibition space, a networking evening, a panel meeting on air mobility and company visits.

More information:

<https://www.clp-laser.fr/en/event/pli-conferences-2024>

THE NEWSKIN WATER DAYS: 2 DAYS EXPLORING WATER-RELATED TECHNOLOGIES

From 20 to 21 March, the NewSkin Water Days took place in Orléans or online and focused on new technologies for addressing water-related challenges.



The event was organised as part of the NewSkin OITB European project. NewSkin is an Open Innovation Test Bed that provides access to physical facilities and services for the development, validation, and marketing of nanoproducts with new functionalities.

Over two days, European experts from research organisations and companies presented various water challenges including water recycling, reuse, and desalination, as well as the solutions provided by NewSkin OITB and other European projects. More than 50 attendees gathered to learn about cutting-edge surface and membrane technologies, such as laser surface functionalisation and nano-coatings for anti-corrosion and anti-fouling applications.

ALPHA-RLH, a partner of NewSkin OITB, also participated in the event. It was also an opportunity for the cluster to attend the 8th NewSkin consortium meeting and the 1st prefigurative General Assembly of NewSkin AISBL, the association that will take over the project to continue providing the services.

UPCOMING INTERNATIONAL EVENTS

■ **PLI Conferences**
June 18-19 in Bordeaux
(France)

■ **1st Photonics Talent
International Summer School**
July 8-12 in
Bordeaux (France)

■ **INPHO Venture Summit**
October 24-25 in Bordeaux
(France)

News in Brief

- Our M1 students attended a workshop aiming to raise awareness of climate change (<https://fresqueduclimat.org/>)
- New agreement between the UTT and the University of Mumbai, India
cf. <https://www.freepressjournal.in/education/in-a-first-mumbai-university-ties-up-with-french-university-for-dual-degree>.
- In February, a NANO-PHOT PhD student, Kevin Kim (full Bright Scholarship holder), moved to the USA for 4 months to join the A.J. Drexel Nanomaterials Institute, Philadelphia.
- A new class “nanomaterials and nanofabrication” opened in February
- New France-USA material science program, entitled MAT-MOV, has just been launched by the University of Texas San Antonio. UTT and NANO-PHOT are involved.

NEW NANO-PHOT STUDENTS ARE CURRENTLY BEING RECRUITED. TO DATE, THE GRADUATE SCHOOL HAS 45 STUDENTS: 7 M1, 14 M2 AND 24 PHD STUDENTS. OUR GOAL IS TO EXCEED 100 STUDENTS BY 2028.

AGENDA

■ Coming summer school at UTT « Quantum hardware for quantum technologies » as part of the European project DigiQ: digitally enhanced quantum technology master.

■ Conference META24 in July
<https://metaconferences.org/META24/index.php/META/index>

CONTACT

<https://nano-phot.utt.fr/>
nanophot@utt.fr

Sustainability matters

The NANO-PHOT Graduate School offers an unparalleled program of excellence, with an international dimension and in direct contact with scientific and socioeconomic stakes related to the use of light, on nano and micro metric scales. Sustainability is a major concern. Three significant examples:

Optical Characterization of Translucent Wood



Ashima VASHISTHA, a NANO-PHOT PhD student at the L2n lab of UTT, is working in the domain photonics in collaboration with a biotechnological startup: Woodoo.

Her research project delves into the potential of translucent wood in optics and photonics, offering a sustainable solution to traditional industrial materials. By focusing on characterizing the optical properties of translucent wood, she explores how the structure of wood, influenced by growth conditions, affects fabrication processes and ultimately, optical properties. This study aims to establish a feedback equation linking wood anatomy, fabrication parameters, and optical properties, facilitating the production of translucent wood with precise characteristics. The project targets applications in the automotive industry and tactile display screens.



Nanomaterials & Sustainability

NANO-PHOT co-organized with Gary Wiederrecht from Argonne National Laboratory (USA) a workshop “Nanomaterials & Sustainability” held on May 4, 2023, as part of the annual Advanced Photon Source/Center for Nanoscale Materials Users Meeting. The workshop had more than 180 registrants and consisted of 12 invited talks covering a diverse range of subjects that included the impact of nanomaterials on sustainable energy solutions, nanostructured biomaterials, and sustainable manufacturing with nanomaterials. The workshop resulted in a multi-author publication in ACS Energy Letters <https://doi.org/10.1021/acsnenergylett.3c01303>



Nanoplasmonics for organic photovoltaics

Within a French-Chinese consortium, NANO-PHOT takes part in the development of novel organic photovoltaics (OPV) through the use of metal plasmonic nanoparticles as scatterers that disperse light to increase the optical path of rays in the active layer. Recently, this approach improved the performance of semitransparent OPVs in the near infrared. For the first time, a power conversion efficiency of 16% and an average visible transmittance of 33% were achieved, offering promising prospects for application in building-integrated photovoltaic systems and greenhouses.

More details at: <https://doi.org/10.1002/adma.202311305>

International Nanophotonics workshop



On February 19-22, NANO-PHOT organized the 3rd Nanophotonics workshop at UTT, in collaboration with Sasha Govorov (Ohio University). 25 leading researchers came to Troyes from Italy, Germany, USA, Canada, China and France to present their work. The NANO-PHOT students had the opportunity to take part in discussions, present their

work to distinguished researchers, and enrich their international connections.

More than 350 Executive representatives gather for the EPIC Annual General Meeting in Nice

EPIC recently celebrated its Annual General Meeting in Juan Les Pins, Nice, France. The event brought together over 350 CEOs and executive representatives from the global photonics community to discuss strategic topics such as Innovation, Entrepreneurship, New Markets, challenges and trends in photonics technologies. During the event, Axel Kupisiewicz, founder and CEO of LASEA, received the EPIC CEO Award 2024, while Viacheslav (Slava) Artyushenko, CEO of art photonics, was honored with the EPIC Lifetime Achievement Award. The occasion also marked the introduction of Dr. Björn Dymke, Managing Director of TRUMPF Laser, as a new member of the Board of Directors of EPIC.



The two-day convention featured conferences, an exhibition area, and networking activities including the traditional EPIC Run, Gala Dinner and Networking Reception, and a FUN Night, where entrepreneurs shared stories about the challenges they encountered on their paths. For the first time, part of the summit's agenda was open to non-EPIC members with the aim of fostering collaboration with key stakeholders in photonics from around the globe. Attendees had the opportunity to hear inspiring speeches, such as one by Benoît d'Humières from Tematys, who presented Market Trends in Photonics,



and presentations by Claire Valentin from Exosens and Chantal Germain from HEF Group, who shared insights into Challenges in the Photonics Market and Investment, respectively. Additionally, Orange Labs discussed Fiber to Home and photonic integration in the fiber gateway. Scan the QR code to view all the pictures and an extended recap of the event.

EPIC Meeting on Specialty Optical Fibers hosted by Photonics Bretagne

12-13 June 2024 in Lannion, France



Specialty Optical Fibers are a key component in a lot of critical applications nowadays, such as sensing, lasing, telecommunications, spectroscopy... Throughout the meeting, we will explore the new solutions and designs of optical fibers, ranging from non-standard materials to photonic crystal

structures, the novel manufacturing methods and their potential applications. We will also understand the new technologies used for fiber preparation, characterization and the last developments in connectors. Confirmed speakers include representatives from companies such as Orange Labs, Infinera, Fluence Technology, Le Verre Fluore, Coherent, Nyfors, GLOphotonics, OFS, Lumoscribe and Arden Photonics. Attendees will also have the opportunity to visit companies in the area, such as Exail, LUMIBIRD and KERDRY.

AGENDA

■ **EPIC Technology Meeting on Photonics for XR: through emerging technologies and challenges at Microsoft**
27-28 May 2024
Espoo, Finland

■ **EPIC Online Technology Meeting on Photonics for Vision and Eye Research**
3 June 2024 - Online Event

■ **EPIC Technology Meeting on Photonic Integration and Packaging at Fraunhofer IZM**
4-5 June 2024 - Berlin, Germany

■ **EPIC HR Workgroup meeting**
7 June 2024 - Online Event

■ **EPIC Marketing Meeting on Social Media II – Special focus on B2B companies**
12 June 2024 - Online Event

■ **EPIC Technology Meeting on Specialty Optical Fibers: New Designs and Novel Applications at Photonics Bretagne**
12-13 June 2024
Lannion, France

■ **EPIC Sustainability Workgroup Meeting**
14 June 2024 - Online Event

■ **EPIC Online Technology Meeting on Photonics for Sea Exploration and Oceanography**
1 July 2024 - Online Event

■ **EPIC Members Delegation to Taiwan**
2-6 September 2024
Taipei, Taiwan

■ **EPIC Online Technology Meeting on Photonics Hybrid Photonics Integrated Circuits**
16 September 2024
Online Event

Sponsor our events!
Contact us by mail
(see below)

CONTACT

Anna Trachtova
anna.trachtova
@epic-photonics.com

NEW MEMBERS

Welcome to our new members:
AERODIODE, CNRS-CNPS,
KERANOVA, Lycée Jacques
de Vaucanson (Tours)
and STMicroelectronics.







A professional diploma in 2024 for future photonics operators

The photonics industry in France is booming: over 1,200 companies throughout the country are recruiting nearly 2,000 operators and technicians every year.

A vocational baccalaureate in photonics is the missing level to recruit more photonics operators. Until now, companies recruited graduates with a bachelor degree to fill their needs. This specific training at baccalaureate level will also enhance the sector's visibility and attractiveness to secondary school students.



The vocational baccalaureate "Optics Photonics: Technologies of Light" will be launched at the start of the 2024 academic year in 7 vocational high schools, with the support of companies and regional training bodies. A further 6 are scheduled to open in 2025.

The new vocational baccalaureate will train future technicians and operators in charge of the manufacturing, assembly-adjustment, implementation and maintenance of photonic components and systems. It demonstrates the many career opportunities offered by companies in this field.

AGENDA

■ **Photonics France general meeting**
(for members only)
May 13, 2024 - Paris

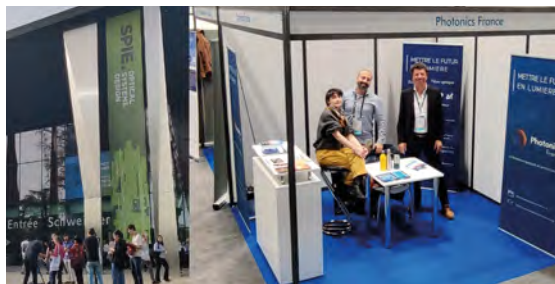
■ **Business Meeting for Agriculture**
May 31, 2024 - Rennes

■ **French Photonics Days**
October 16-17 - Besançon

■ **Photonics with CNRS**
November 2024 - Paris

Sponsor our events!
Contact us by mail
(see below)

SPIE PHOTONICS EUROPE: MEETING OUR MEMBERS



SPIE Photonics Europe took place in Strasbourg from April 7 to 11, 2024. Nearly 2,500 attendees came from all over Europe and beyond. Photonics partnered with SPIE for the promotion and organization of the show, which featured photonics conferences and an industrial exhibition.

Photonics France visited its 25 members who were exhibiting at this major photonics event, held in France but attended by a European audience.

We thank all our members for their participation: ALPhANOV, Amplitude Laser, ARDOP Industrie, CRISTAL LASER, EVOSSENS, Exail, Femto Easy, HEF Groupe, Imagine Optic, IREPA LASER, Le Verre Fluoré, LEUKOS, LUMIBIRD, NKT Photonics, Opton Laser International, Oxsius, PHASICS, Photonics Bretagne, Photonics Open Projects, Pro-Lite Technology, PYLA, SAVIMEX, SOMOS, SYMETRIE, Thorlabs.

TO CONTACT
PHOTONICS FRANCE

contact@photonics-france.org
www.photonics-france.org

Photonics Industry at Photonics Europe



The 2024 edition of SPIE Photonics Europe in Strasbourg was a resounding success.

Photonics Bretagne and 18 of its members exhibited: IDIL Fibres Optiques, Oxxius, Lumibird, Exail, Evosens, Le Verre Fluoré, Leukos, OBS Fiber, TOPTICA Photonics, HTDS,

OptoSigma Europe, Kerdry/HEF Photonics, Imagine Optic, ALPhANOV, SOMOS, Amplitude Laser, Photonics Open Projects and KWAN-TEK. In addition, the latter two could exhibit free of charge in the Innovation Village. KWAN-TEK even won the prize of the best innovation by a company! Indeed, the fair was a great opportunity to catch up with our members, including visiting members such as Microcertec, Percipio Robotics, ENSSAT, Tematys and Wavetel, and with the rest of our network. The large number of visitors welcomed at our booth enabled us to highlight our capability to custom design specialty optical fibres and components, including our recently developed metallic coatings. Our biophotonics engineering activity was also showcased and presented in a poster entitled "Spatial-Frequency-Domain Hyperspectral Microscopy".

Quantum at the Heart of a Techno-Conference

"Journey to the Centre of Quantum - Sensors, Communications, Computing": Such was the theme of the techno-conference organised on April 4th in Lannion by the Images & Réseaux and Photonics Bretagne clusters and in partnership with



Orange Innovation. Sold out 2 weeks in advance, the event brought together 140 participants, including researchers and big names from the sector (Thalès, Exail, Direction Générale de l'Armement), as well as internationally renowned experts, such as Pascale Senellart, CNRS silver medallist and member of the new Presidential Science Council. The programme centred around the landscape of new digital technological perspectives applied to quantum sensors, quantum communications and quantum computing. It included presentations, round tables as well as networking opportunities to initiate the emergence of future collaborations. The day ended with an exceptional visit to Orange Innovation's photonics and quantum laboratories. This conference gauged the scope of possible applications for quantum technologies in strategic sectors, such as health, agriculture, cybersecurity, defence and climate, as defined by the French government in its "France 2030" plan.

MEMBERS' NEWS

Jalis Meca is taking over the activities of SEFG Innovation, including the continued development of their flagship product, the BLACKSWAN SURFING lamp. Developed in partnership with Leano design and Evosens, this technology offers surfers a unique night-time experience. The parts will now be produced in STMP's workshops and distributed under the Jalis Meca identity.

Orange and three Breton engineering schools - IMT Atlantique, ENIB and ENSSAT - created Lab'Optic, a joint laboratory dedicated to optical telecommunications. Thanks to the resources of Orange, Institut Foton and Lab-STICC laboratories, Lab'Optic researchers will carry out various collaborative research projects and will focus on three main areas of research:

- **Increasing** the transmission capacity of optical transport networks for Internet, without modifying existing infrastructures and favouring energy-efficient solutions.
- **Improving** the efficiency of optical networks reaching business and residential customers by increasing throughput beyond 50 Gbit/s, reducing latency, enhancing security and optimising energy efficiency.
- **Developing** new digital signal processing techniques and algorithms for very high-speed optical transmissions, aimed at increasing throughput and at rationalising the optical interface power consumption, by incorporating advances in artificial intelligence.

AGENDA

■ **Business Meeting:**
Photonics for Agriculture
May 31, Rennes (France)

■ **EPIC Technology Meeting**
on Specialty Optical Fibres
June 12-13, Lannion (France)

■ **General Assembly**
of Photonics Bretagne
July 5, Lannion (France)