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# FINAL CALL FOR PAPERS

12<sup>th</sup> International Conference on Optics-photonics



Design & Fabrication

“ODF'20, Taoyuan”  
June 1<sup>st</sup>-3<sup>rd</sup>, 2021



*Extended from 2020 to 2021*

National Central University, Taoyuan, Taiwan

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## Organized by

National Central University / Taiwan

Optics Design Group of The Optical Society of Japan / Japan

## Co-Sponsored by

Asia Optical Co., Inc. (Taiwan)

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PIDA (Photonics Industry & Technology Development Association / Taiwan)

TPS (Taiwan Photonics Society / Taiwan)

## In Cooperation with *(Some of the organizations are under negotiation.)*

Applied Optics Meeting in Kansai • CIE (Chinese Institute of Engineers) • DGaO (German Society of Applied Optics) • EOS (European Optical Society) • ICO (International Commission for Optics) • IEICE (The Institute of Electronics, Information and Communication Engineers) • IEIJ (The Illuminating Engineering Institute of Japan) • JIEP (Japan Institute of Electronics Packaging) • IIEEJ (The Institute of Image Electronics Engineers of Japan) • ITE (The Institute of Image Information and Television Engineers) • JOEM (Japan Optomechatronics Association) • JOMA (Japan Optical Measuring Instruments Manufacturers' Association) • JPS (The Physical Society of Japan) • JSMBE (Japanese Society for Medical and Biological Engineering) • Japan Photonics Council • JSPE (The Japan Society for Precision Engineering) • LSJ (The Laser Society of Japan) • OITDA (Optoelectronics Industry and Technology Development Association) • OPSS (Optics and Photonics Society of Singapore) • OSA (The Optical Society) • OSK (Optical Society of Korea) • ROS (Rozhdestvensky Optical Society) • SPIE (The International Society for Optics and Photonics) • SPIJ (The Society of Photography and Imaging of Japan) • The 179th Committee on Photonics Information Systems, JSPS (Japan Society for the Promotion of Science) • The Color Science Association of Japan • The Astronomical Society of Japan • The Spectroscopical Society of Japan • SID Japan Chapter (Society for Information Display Japan Chapter) • TOOMA (Taiwan Optics/Optronics Manufacturers' Association) • TPS (The Physical Society of Taiwan)

**Paper Submission Period: Aug. 31st, - Dec. 18th, 2020**

**<http://www.odf20.tw>**

## INTRODUCTION

The 12th International Conference on Optics-photonics Design & Fabrication “ODF'20 in 2021, Taoyuan” will be held on June 1st-3rd, 2021 at the Department of Optics and Photonics, National Central University in Taoyuan, Taiwan. Optics-photonics design and fabrication will continue to play a significantly important role in the 21st century achieving harmony between technology and the environment. ODF'20 in 2021 is intended to provide an international forum for original paper presentations and discussions of optics-photonics design and fabrication related technological and scientific topics. These topics include theory, design, fabrication, testing, applications, and others.

ODF'20 in 2021 is aimed to promote international collaboration among the participants in this field including related companies' exhibition and sightseeing tour.

**Collaboration and Competition make progress.**

**“Join us at ODF'20 in 2021, Taoyuan!”**

## SCOPE OF THE CONFERENCE

ODF'20 in 2021 is an international forum for the engineers and scientists in the field of Optics-photonics Design and Fabrication to exchange their ideas and achievements with the goal of future mutual progress. Please refer the ODF'20 in 2021 web page for the detailed explanation of each category.

## CATEGORIES AND PRELIMINARY LIST OF INVITED SPEAKERS

### Plenary

**Takashige Omatsu (Chiba Univ. / Japan)**

*“Twisted Light: Fundamentals and Applications”*

**Tomasz S. Tkaczyk (Rice Univ. / USA)**

*“Paradigm Shifts in Design and Fabrication of Optical Systems - New Opportunities of Additive Manufacturing for Photonics”*

**Din Ping Tsai (The Hong Kong Polytechnic Univ. / Hong Kong)**

*“Optical Meta Device: Fabrication and Application”*

### Special Session: “AR/VR/MR Optics”

**Hong Hua (Univ. of Arizona / USA)**

*“Design of Head-Mounted Light Field Displays for Virtual and Augmented Reality”*

**Bernard Kress (Microsoft / USA)**

*“Optical Architecture Choices for HoloLens V2 Mixed Reality Head Mounted Display”*

**Byron Taylor (Facebook / USA)**

*“Human perception challenges in AR design”*

**Norihiro Ohse (SONY / Japan)**

*“Warp Square, 360 Degree Visual Experience by 4K Ultra-Short-Throw Projector Cave”*

**Paper Submission Period: Aug. 31st, - Dec. 18th, 2020**

**<http://www.odf20.tw>**

**Koki Wakunami (NICT / Japan)**

*“Holographic Printing Technology for Fabrication of Future Holographic Optical Elements”*

### **Category 1. Optical Design / Simulation / Fabrication**

**Fleming M. Chuang (Coretronic Corp. / Taiwan)**

*“Freeform based Head Mounted Display with Extended Eye Box and Time-Multiplexed Light Field by MEMS Vari-focal Device”*

**Rongguang Liang (Univ. of Arizona / USA)**

*“All reflective microscope”*

**Yuji Toriumi (Ricoh / Japan)**

*“RICOH THETA Z1 360 Degree Camera with Triple-Folded Optical System”*

### **Category 2. Optical Components / Devices**

**Douglas Barlage (Univ. of Alberta / Canada)**

*“Manipulating wideband gaps into being a p-type material”*

**David L. Dickensheets (Montana State Univ. / USA)**

*“Active Optics for Dynamic Focus, Aberration Management and Beam Scanning”*

**Noboru Ebizuka (RIKEN / Japan)**

*“Novel Transmission Gratings for Astronomical Observation and Space Application”*

**Boon S. Ooi (King Abdullah Univ. of Science and Tech. / Saudi Arabia)**

*“Laser Lighting and Visible Light Communications”*

### **Category 3. Optical Systems**

**Vladan Blahnik (Carl Zeiss AG / Germany)**

*“Lens Developments at Zeiss for Apollo Moon Landing Missions 50 Years Ago”*

**Cheng-Huan Chen (NCTU / Taiwan)**

*“Integrating Holographic and Geometrical Imaging for Display Optical System Design”*

**Yusuke Nakamura (Hitachi / Japan)**

*“Lensless 3D Sensing Technology with Light-Field Imaging Using Fresnel Zone Aperture”*

**Yuzuru Takashima (Univ. of Arizona / USA)**

*“Lidar and AR displays by MEMS-Based Angular and Spatial Light Modulation”*

### **Category 4. New Technologies**

**Yu-Jung Lu (NTU / Taiwan)**

*“Lead Halide Perovskite Based Plasmonic Nanolasers”*

**Teruyoshi Nobukawa (NHK / Japan)**

*“Single-shot Incoherent Holography with Multiplexed Gratings for 3D Imaging”*

**Atsushi Okamoto (Hokkaido Univ. / Japan)**

*“Complex Amplitude Control Technology for Mode-Multiplexing Optical Communication”*

**Paper Submission Period: Aug. 31st, - Dec. 18th, 2020**

**<http://www.odf20.tw>**

**Ta-Jen Yen (NTHU / Taiwan)**

*“Intensifying MoS<sub>2</sub> Bilayers by Quadrupole Gap Plasmons for Excellent Hydrogen Evolution Reaction and by Morphology-controlled Plasmonic Nanostructures towards Superior Photodetectors”*

## **PREPARATION OF ABSTRACTS AND MANUSCRIPTS**

A limited number of original papers will be accepted for presentation. Authors are required to submit a 35-word Abstract and 2-page Manuscripts. The paper must be submitted online. Please confirm the submission procedure on the ODF'20 in 2021 Home Page. The copyright of the article published in the ODF'20 in 2021 Technical Digest is to be transferred to the National Central University (NCU) and Optical Society of Japan (OSJ). The authors are required to agree to the copyright transfer in the online submission procedure at the same time as the 35-word abstract and the 2-page manuscripts are submitted.

- **35-word Abstract**

Abstract should be up to 35 words in text format. Please avoid the use of scientific and engineering symbols in the abstract. The abstract which is longer than 35 words will be shortened by the program committee. If the paper is accepted, the abstract will appear in the Advance Program.

- **2-page Manuscripts**

2-page camera-ready manuscripts including text, figures, tables, and references must be typed single-spaced on an A4 or letter size paper, with the title followed by the author's name, affiliation, and address. Accepted papers will be published in the Technical Digest of the conference. For the layout of manuscript, please see the Guidelines to appear on the ODF'20 in 2021 website.

- **Abstracts & Manuscripts will be accepted: Aug. 31st, – Dec. 18th, 2020**

For inquiries, please contact:

ODF'20 in 2021 Taoyuan Secretariat

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Office hours: 09:00 a.m. -01:00 p.m.

02:00 p.m. -06:00 p.m.

The presentation schedule will be determined after the program committee has reviewed the papers. Authors will be notified by March 15th, 2021, whether their papers have been accepted. Notification will be sent to the author listed first by E-mail or a letter. Note that it will be the author's responsibility to obtain any necessary and appropriate clearances from his/her affiliation.

**Paper Submission Period: Aug. 31st, - Dec. 18th, 2020**  
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## ADDITIONAL INFORMATION

- **Post-deadline Papers**

Detailed information will be announced in the Advance Program and on the ODF'20 in 2021 website.

- **ODF'20 Special Issue of OPTICAL REVIEW and OSA CONTINUUM**

The presented papers can be resubmitted and published in the ODF'20 in 2021 special issue of the OPTICAL REVIEW and OSA CONTINUUM. Application forms for the special issue will be distributed on site. Each author can choose either of the two journals.

## REGISTRATION

- **Registration Fee (USD)**

The registration fee includes admission to technical sessions and one copy of Technical Digest (for on-site participation only). As for the person who paid the registration fee, the reception banquet fee is free except for students and on-line participation.

On-site Author	150
On-site Attendee	150
Student	50
On-line Author	100
On- line Attendee	Free

- **Registration**

Those who wish to attend ODF'20 in 2021, Taoyuan are required to make on-line registration. The on-line registration page will be available in the ODF'20 in 2021 website.

- **Accompanying persons**

Participants can register accompanying persons. Accompanying persons are his/her family members. Registration fee for accompanying persons includes all expenses except admission to the technical session, conference pack and one copy of the Technical Digest.

- **Cancellation Policy**

There will be no refunds for the registration fee.

## CONFERENCE SITE

ODF'20 in 2021, Taoyuan, will be held at National Central University, Taoyuan. Detailed information will be available in the ODF'20 in 2021 website.

## HOTEL RESERVATION

Accommodation information will be available in the ODF'20 in 2021 website. Some hotels in Taoyuan area are arranged for ODF'20 in 2021 participants.

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**<http://www.odf20.tw>**

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**Paper Submission Period: Aug. 31st, - Dec. 18th, 2020**

**<http://www.odf20.tw>**

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**Paper Submission Period: Aug. 31st, - Dec. 18th, 2020**

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**Paper Submission Period: Aug. 31st, - Dec. 18th, 2020**

**<http://www.odf20.tw>**



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