IPS2018

23rd International Visual Field & Imaging Symposium

Kanazawa, Japan,
May 9\textsuperscript{th} – 12\textsuperscript{th}, 2018

Program & Abstract Book
Perimetry is the quantitative evaluation of the visual field. Ocular Imaging is the assessment and evaluation of the structural details of the eye. The aims of the IPS are
1) to promote the study of normal and abnormal visual function and of ocular imaging.
2) to ensure and facilitate the cooperation and friendship of scientists of different countries working and interested in these disciplines.

Previous Symposia

1974: Marseille, France
1976: Tübingen, Germany
1978: Tokyo, Japan
1980: Bristol, UK
1982: Sacramento, CA, USA
1984: Santa Margherita Ligure, Italy
1986: Amsterdam, The Netherlands
1988: Vancouver, Canada
1990: Malmö, Sweden
1992: Kyoto, Japan
1994: Washington, D.C., USA
1996: Würzburg, Germany
1998: Gardone Riviera, Italy
2000: Halifax, Canada
2002: Stratford upon Avon, UK
2004: Barcelona, Spain
2006: Portland, OR, USA
2008: Nara, Japan
2010: Tenerife, Spain
2012: Melbourne, Australia
2014: New York, NY, USA
2016: Udine, Italy
<table>
<thead>
<tr>
<th>Table of Contents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome to Kanazawa</td>
<td>4</td>
</tr>
<tr>
<td>Committees and Honorary Members</td>
<td>5</td>
</tr>
<tr>
<td>Meeting Information</td>
<td>7</td>
</tr>
<tr>
<td>Oral Presentation Guidelines</td>
<td>9</td>
</tr>
<tr>
<td>Poster Presentation Guidelines</td>
<td>11</td>
</tr>
<tr>
<td>Access to the Venue</td>
<td>14</td>
</tr>
<tr>
<td>JR Kanazawa Station East Entrance (Kenrokuen Guchi)</td>
<td>15</td>
</tr>
<tr>
<td>Floor Plan</td>
<td>16</td>
</tr>
<tr>
<td>Sponsors and Endorsement</td>
<td>17</td>
</tr>
<tr>
<td>Social Events</td>
<td>18</td>
</tr>
<tr>
<td>General Information</td>
<td>19</td>
</tr>
<tr>
<td>Map of Downtown Kanazawa</td>
<td>20</td>
</tr>
<tr>
<td>Program at a Glance</td>
<td>22</td>
</tr>
<tr>
<td>Program</td>
<td>26</td>
</tr>
<tr>
<td>IPS Lecture</td>
<td>37</td>
</tr>
<tr>
<td>Aulhorn Educational Lecture</td>
<td>38</td>
</tr>
<tr>
<td>Oral Session</td>
<td>43</td>
</tr>
<tr>
<td>Poster Session</td>
<td>76</td>
</tr>
<tr>
<td>Sponsored Seminar</td>
<td>108</td>
</tr>
</tbody>
</table>
Welcome to Kanazawa

IPS2018 Host:

Kazuhsa Sugiyama, M.D., Ph.D.
Department of Ophthalmology,
Graduate School of Medical Sciences,
Kanazawa University, Kanazawa, Japan

Aiko Iwase, M.D., Ph.D.
Tajimi Iwase Eye Clinic, Tajimi, Japan

Dear Colleagues and Friends,

We are honored to be hosting the 23rd International Visual Field & Imaging Symposium (IPS2018) at the Ongakudo (in front of Kanazawa Station) in Kanazawa city, Japan, from May 9 to 12, 2018. The previous IPS meetings had been held in Japan 3 times; the 3rd IPS in Tokyo, 1978 (Prof. Harutake Matsuo), the 10th IPS in Kyoto, 1992 (Prof. Yoshiaki Kitazawa: boss of Aiko & Kazu), the 18th IPS in Nara, 2008 (Prof. Chota Matsumoto). It is our great pleasure to have the opportunity to organize such an influential academic conference and to welcome so many friends from all over the world to Kanazawa!

Kanazawa is unlike the populous metropolitan cities of Tokyo or Osaka; it is considered a popular tourist city where more than 8 million tourists visit each year to see and appreciate genuine Japanese culture. In the era of the Samurai (Edo period - 265 years), Kanazawa had a large population exceeded only by Tokyo, Osaka and Kyoto. This time period was prosperous and characterized by sophisticated foods, crafts, and art developed independently and known as the Hyakumangoku culture. Moreover, as Kanazawa has never been affected by war nor suffered any major natural disasters, the city has been able to maintain its historical districts, which include traditional Japanese dwellings, magnificent gardens, numerous shrines, and the remarkable Kanazawa Castle - all reflecting the culture of the Samurai.

Welcome reception will be held in Kanazawa Castle in the evening of May 9 (Wednesday). The participants can enjoy the Congress Tour to the famous areas in Kanazawa City in the afternoon of May 11 (Friday). You will be able to immerse yourself in and experience authentic Japanese culture, including traditional Japanese dress, foods, and daily life, not easily appreciated in the larger metropolitan cities of Japan. Kanazawa is also blessed with beautiful natural surroundings and you can enjoy sophisticated Japanese cuisine such as sushi and tempura made from fresh local fish and shellfish caught and delivered directly from the Sea of Japan and sake (Japanese rice wine) produced from naturally clear local stream water.

The impact and influence of the previous IPS meetings as an international academic organization and the significant contributions made by the IPS members has resulted in a steady evolution in the understanding, technology, and diagnosis skill. However, it is also evident that many challenges still exist; our goals for this meeting are to identify and explore some of these challenges. We want to encourage the sharing of our knowledge and ideas, the discussing of experiences and successes, and the proposing of future directions of focus. We invited Prof. Michael Wall as a speaker of the IPS Lecture. We changed Aulhorn Lecture to Aulhorn Educational Lecture which is more educational contents including imaging and perimetry by 4 speakers. We also conducted the simultaneous meeting of Japan Perimetric Society (JPS2018) from May12 to 13, 2018 in Kanazawa.

We would be grateful if you would actively exchange your valuable knowledge and experience regarding the development of imaging and perimetry over the 3 days of the conference, enjoy the meeting with many friends and colleagues from all over the world, and form new and deepen old friendships at the same time.

Welcome to Kanazawa!
IPS Board Members:
President: Chota Matsumoto
Past President: Chris Johnson
Vice President: David (Ted) Garway-Heath
Vice President: Aiko Iwase
Secretary: Allison M. McKendrick
Treasurer: Mitchell Dul
Past-Secretary: David Henson

Members at Large:
Lyne Racette
Ryo Asaoka

Other Board Members:
Fritz Dannehim
Kazuhisa Sugiyama
Aiko Iwase

Group Chairs:
Awards Committee: Fritz Dannehim
Education - Perimetry: Chota Matsumoto
Education - Imaging: David (Ted) Garway-Heath
Imaging Standards: Linda Zangwill
Industry Liaison and PR Committee: Paul Artes
Open Perimetry Interface: Paul Artes; Andrew Turpin

Honorary Members of the IPS:
Stephen Drance
Jay Enoch
Franz Fankhauser
Lars Frisen
Erik Greve
Anders Heijl
Yoshiaki Kitazawa
Pam Sample

In Memoriam Honorary Members of the IPS:
Elfriede Aulhorn
Alan Friedmann
Hans Goldmann
Heinrich Harms
Haratuke Matsuo
Mario Zingirian

Local Organizing Committee
Host (Program Committee)
Kazuhisa Sugiyama
Aiko Iwase
Local Executive Committee (Local Organizing Committee)
Chota Matsumoto
Shinji Ohkubo
Tomomi Higashide
Tadashi Nakano
Makoto Nakamura
Sachiko Udagawa

Advisory Board
Keiji Yoshikawa
Hirotaka Suzumura
Satoshi Kashii
Goji Tomita
Yoshio Yamazaki
Takeshi Yoshitomi
Sachiko Okuyama

Advisory Steering Board
Kazutaka Kani
Makoto Araie
Shiroaki Shirato

JPS Board Members
Ryo Asaoka
Shiho Kunimatsu-Sanuki
Mineo Kondou
Kei Shinoda
Nobuyuki Shoji
Motohiro Shirakashi
Genichiro Takahashi
Satoshi Nakadomari
Takeo Fukuchi
Kyoko Fujita
Naoya Fujimoto
Akemi Wakayama

Honorary Members of the JPS
Haruki Abe
Nariyoshi Endou
Toshifumi Otori
Kazutaka Kani
Yoshiaki Kitazawa
Shiroaki Shirato
Shuji Maeda
Keiji Yoshikawa
Meeting Information

Venue
Ishikawa Ongakudo
Showa-machi20-1, Kanazawa-shi, Ishikawa, Japan 920-0856
FAX : +81-76-232-8101

Official Language
English

Registration Fee

<table>
<thead>
<tr>
<th>Registration fee type</th>
<th>On-site Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPS Members</td>
<td>65,000 JPY</td>
</tr>
<tr>
<td>IPS Non Members</td>
<td>75,000 JPY</td>
</tr>
<tr>
<td>*Residents/Fellows/Medical Staff</td>
<td>45,000 JPY</td>
</tr>
<tr>
<td>Accompanying Persons</td>
<td>45,000 JPY</td>
</tr>
</tbody>
</table>

*Residents/Fellows/Medical Staff must submit an official university/affiliation certificate or letter in English, in conjunction with on-site registration, which confirms their status. Documentation must be submitted on-site.

Registration Entitlements

[IPS Members, IPS Non Members, Residents/Fellows/Medical Staff]
- Congress Kit
- Access to all Scientific Programs
- Welcome Party on May 9 (Wed.)
- Conference Tour on May 11 (Fri.)
- Closing Banquet on May 12 (Sat.)
- Morning/Luncheon/Afternoon Seminars
- Coffee breaks

[Accompanying Persons]
- Welcome Party on May 9 (Wed.)
- Conference Tour on May 11 (Fri.)
- Closing Banquet on May 12 (Sat.)
- Coffee breaks

Accompanying Persons are NOT allowed to attend any scientific programs.
Registration Desk
The registration desk is located in the lobby of ISHIKAWA ONGAKUDO on 1st floor. Registration Desk opening hours are:

- Wednesday, May 9 16:00-17:45
- Thursday, May 10 7:30-18:00
- Friday, May 11 7:30-13:00
- Saturday, May 12 7:30-16:30

Cloakroom
Cloakroom is located in front of Koryu Hall on B1 floor. It opens as follows;

- Thursday, May 10 7:30-19:00
- Friday, May 11 7:30-13:30
- Saturday, May 12 7:30-17:30

Name Badge
All registered attendees will receive a name badge. Please wear the badge for the meeting activities.

General Information Desk
Inquiries concerning the meeting may be made at the general information desk located next to the registration desk.

Mobile Device Policy
Photography, filming, or recording is prohibited while presentations. Also, please respect presenters and other delegates by ensuring your mobile devices are switched off or on silent mode while you are in sessions.

Disclaimer
The organizing committee of IPS2018 will accept no liability for the safety of any participant, or for personal injury of loss, or damage to private property suffered during the meeting.

日本眼科学会専門医制度認定単位について
本会で取得可能な単位は以下の通りです。
受付場所：石川県立音楽堂 1F 正面ホワイエ
日時・単位数：5月10日（木）9:00 ～ 18:30・3単位
5月11日（金）9:00 ～ 12:00・2単位
5月12日（土）9:00 ～ 16:35・3単位※
※5月12日（土）はIPSとJPS合わせての単位となります。両学会に参加でも、どちらか1つに参加でも3単位となります。
For All Chairs
We ask that you strictly adhere to the time provided for presentations and Q&A to ensure smooth operation of the meeting. Please be prepared at the Chairperson's Seats in a session room no later than 15 minutes before the session, and notify staff nearby the Chairperson’s Seats of your arrival.

For Oral Session Presenters
7 minutes for presentation & 5 minutes for Q&A
Please note that the session room will have a data projector and we will only accept computer-based presentations. Slide/Overhead/VCR projectors will NOT be available. To ensure your presentation runs smoothly, please bring your presentation data to PC Preview Desk located in the lobby on the first floor of the Ishikawa Ongakudo at least 60 minutes prior to your presentation. If you use Macintosh, please bring you own PC, and also stop by PC Preview Desk.

1. Our OS is Windows 10 and projector is XGA, or 1024 by 768 pixels.

2. If you bring your presentation data in a CD-R or USB flash memory stick, please follow the instructions below:
a) The computers provided for the sessions will be running the following operating systems with the following application software installed.
b) Use the above operating system’s standard fonts
   (e.g.) Windows: Century, Century Gothic, Times New Roman, etc
c) Name your presentation data as follows:
   (e.g.) O1-1 John Smith.ppt
d) We use Windows Media Player for video software. Please ensure that your video is playable with the default codecs included in Windows Media Player.

3. If you bring your own laptop computer including Macintosh, please follow the instructions below:
a) Ensure that your computer is equipped with the monitor connector of mini D-sub 15 pins. If your computer does not have this connection, please bring an appropriate converter with you.
   mini D-sub 15 pins
b) Be sure to bring an AC adaptor with you. The Japanese standard AC voltage is 100V.
c) Be sure to turn off screen saver or power saving mode of your laptop in advance.

4. A display monitor, keyboard, and remote mouse will be provided on a podium for presenters to operate. Sound speakers are not available.
5. Presentation data loaded on the computers provided will be completely deleted by the secretariat after your presentation.

6. The secretariat is not responsible for any projection troubles caused by computer technical difficulties. We recommend that all presenters bring back-up data.

7. Presenter view is available.

8. COI Disclosure on presentation
   When the authors disclose the conflict of interest in the presentation, the category and the names of the companies should be shown after the authors' names in the second slide or at the end of poster. If none of the authors has any conflict of interest to be disclosed, please write "there is no conflict of interest to be disclosed". For more details, please refer to “Call for Abstract” of IPS2018 website.

Sample of Slide

PC Preview Desk open hours:
- Wednesday, May 9 16:00-17:45
- Thursday, May 10 7:30-18:00
- Friday, May 11 7:30-13:00
- Saturday, May 12 7:30-17:00
Posters are displayed through the duration of the meeting, May 10-12, 2018 and the time schedule for mounting and removing the posters is as follows.

**Posters Mounting:** 08:00-11:00, Thursday, May 10  
**Posters Removing:** 17:00-18:00, Saturday, May 12

### Poster Preparation and Mounting/Removing

1. The Poster board surfaces measure approximately W90cm × H180cm.
   Poster Presentation Number (20 cm × 20 cm) is displayed at the top left of the board.
2. A supply of pushpins will be available in the poster area for mounting your poster.
3. Each poster must have a label at the top that indicates the title of the paper, the name(s) of the author(s) and their affiliation(s). The presenting author should be marked with a circle.
4. Authors are required to mount and remove their materials scheduled as above.
5. We remind you that you should NOT leave poster tubes or cases in the poster areas. The organizers will not be held responsible for any losses which may be incurred.
6. Posters not removed by the removing time mentioned above will be removed and discarded by the secretariat.

### Oral Presentation

#### For All Chairs
We ask that you strictly adhere to the time provided for presentations and Q&A to ensure smooth operation of the meeting. Please be prepared at the Chairperson’s Seats in a session room no later than 15 minutes before the session, and notify staff nearby the Chairperson’s Seats of your arrival.

#### For All Poster Presenters
Poster presenters are required to deliver 8 minutes’ presentation in an oral session room (3 minutes for presentation & 5 minutes for Q&A). This is designed for delegates to ask questions, the answers to which would be of interest to all delegates. Please note that the session room will have a data projector and we will only accept computer-based presentations. Slide/Overhead/VCR projectors will NOT be available. To ensure your presentation runs smoothly, please bring your presentation data to PC Preview Desk located in the lobby on the first floor of the Ishikawa Ongakudo at least 60 minutes prior to your presentation. If you use Macintosh, please bring you own PC, and also stop by PC Preview Desk.
Poster Presentation Guidelines

1. Our OS is Windows 10 and projector is XGA, or 1024 by 768 pixels.

2. If you bring your presentation data in a CD-R or USB flash memory stick, please follow the instructions below:
   a) The computers provided for the sessions will be running the following operating systems with the following application software installed.
   b) Use the above operating system’s standard fonts
      (e.g.) Windows: Century, Century Gothic, Times New Roman, etc
   c) Name your presentation data as follows:
      (e.g.) O1-1 John Smith.ppt
   d) We use Windows Media Player for video software. Please ensure that your video is playable with the default codecs included in Windows Media Player.

3. If you bring your own laptop computer including Macintosh, please follow the instructions below:
   a) Ensure that your computer is equipped with the monitor connector of mini D-sub 15 pins. If your computer does not have this connection, please bring an appropriate converter with you.

   ![mini D-sub 15 pins]

   b) Be sure to bring an AC adapter with you. The Japanese standard AC voltage is 100V.
   c) Be sure to turn off screen saver or power saving mode of your laptop in advance.

4. A display monitor, keyboard, and remote mouse will be provided on a podium for presenters to operate. Sound speakers are not available.

5. Presentation data loaded on the computers provided will be completely deleted by the secretariat after your presentation.

6. The secretariat is not responsible for any projection troubles caused by computer technical difficulties. We recommend that all presenters bring back-up data.

7. Presenter view is available.
8. COI Disclosure on presentation

When the authors disclose the conflict of interest in the presentation, the category and the names of the companies should be shown after the authors' names in the second slide or at the end of poster. If none of the authors has any conflict of interest to be disclosed, please write "there is no conflict of interest to be disclosed". For more details, please refer to “Call for Abstract” of IPS2018 website.

Sample of Slide

PC Preview Desk open hours:

- Wednesday, May 9 16:00-17:45
- Thursday, May 10 7:30-18:00
- Friday, May 11 7:30-13:00
- Saturday, May 12 7:30-17:00
**Access to the Venue**

**Map of Ishikawa Prefecture**

- **From Tokyo to Kanazawa**
  [Shinkansen - JR East]
  - JR Hokuriku Sinkansen Kagayaki: approx. 2 hours and 30 minutes
  [Airplane]
  - From Haneda Airport to Komatsu Airport: approx. 60 minutes
  - From Komatsu Airport to Kanazawa:
    - *<Bus (Super Express Non-stop)>*: approx. 45 minutes
    - *<Automobile>*: approx. 40 minutes

- **From Osaka to Kanazawa**
  [JR West Japan]
  - JR Special Express Thunderbird: approx. 2 hours and 30 minutes

- **From Nagoya to Kanazawa**
  [JR Central and JR West]
  - JR Special Express Shirasagi: approx. 3 hours

- **From Komatsu to Kanazawa**
  [JR]
  - JR Special Express Thunderbird: approx. 17 minutes

**Downtown Kanazawa**

![Map of Downtown Kanazawa](image-url)
Floor Plan

Ishikawa Ongakudo

B1 F

Exhibition Poster Room

From Motenashi Dome (in the basement)
Cloak Room

1 F

ANA Crowne Plaza Kanazawa

PC (Preview) Center

Main Entrance

To Exhibition and Poster Room (B1F)

Registration Desk

Secretariat Room

Ticket counters (for Ishikawa Ongakudo)

2 F

Room 1
Concert Hall

E.V.
Sponsors and Endorsement

Seminars
Alcon Pharma K. K. / Novartis Pharma K. K.
Carl Zeiss Meditec Co., Ltd.
CREWT Medical Systems, Inc.
Heidelberg Engineering GmbH
Otsuka Pharmaceutical Co., Ltd.
Santen Pharmaceutical Co., Ltd.
Senju Pharmaceutical Co., Ltd.
TOPCON CORPORATION

Endorsement
Japanese Association of Certified Orthoptists
Japanese Ophthalmological Society
Japan Ophthalmologists Association

*Sponsorship Order
as of April 2, 2018

Sponsors
Alcon Pharma K. K.
Bayer Yakuhin, Ltd.
Beeline Co., Ltd.
Carl Zeiss Meditec Co., Ltd.
CENTERVUE S.P.A.
CENTRAL MEDICAL Co., Ltd.
CREWT Medical Systems, Inc.
Gifu Ophthalmologists Association
Haag-Streit
HANDAYA CO., LTD
Heidelberg Engineering GmbH
HOYA CORPORATION
Inami & Co., Ltd.
Ishikawa Ophthalmologists Association
Kowa Company, Ltd.
Kowa Pharmaceutical Co. Ltd.
Maeda Book Store Ltd.
Medical Book Service
NIDEK CO., LTD.
OCULUS Optikgeräte GmbH
Ophthalmic Bookseller
Santen Pharmaceutical Co., Ltd.
SEED Co., Ltd.
Senju Pharmaceutical Co., Ltd.
Tomey Corporation
TOMIKI MEDICAL INSTRUMENTS co., ltd
TOPCON CORPORATION
Welcome Party
Time: 18:30-20:30
Location: Gojukken Nagaya, Kanazawa Castle
Fee: Included in registration fee
Dress: Casual
Shuttle Bus: Depart at 17:45. Bus Stop is located between Ishikawa Ongakudo and ANA Crowne Plaza Kanazawa.
Welcome Party will be held in Gojukken Nagaya of Kanazawa-jo Castle, where weapons used to be stored. Let the networking begin while you enjoy food and drinks. Fee is included in registration fee, and the party is open to registered participants.

Dinner party
Time: 19:30-22:00
Location: Japanese Restaurant "Tsubajin"
Fee: 25,000 JPY
Dress: Casual
Shuttle Bus: Depart at 18:45. Bus Stop is located between Ishikawa Ongakudo and ANA Crowne Plaza Kanazawa.
*Seats are available to the first 100 registrants
Tsubajin is the most traditional Japanese restaurant in Kanazawa, providing you with fresh local ingredients.

Conference Tour
Time: 13:15-17:15
Location: Kanazawa City
(Ishikawa Prefectual Museum of Art, Seisonkaku, Kenroku-en Garden, Higashi chaya Districts)
Fee: Included in registration fee
Dress: Casual
Shuttle Bus: Depart at 13:10 (after Luncheon Seminar). Bus Stop is located between Ishikawa Ongakudo and ANA Crowne Plaza Kanazawa.
The local organizing committee offers a guided tour of Kanazawa City. The tour is included in registration fee and open to all registered participants.

Closing Banquet
Time: 18:30-21:30
Location: Room Tsuru on 4th floor in Hotel Nikko Kanazawa
Fee: Included in registration fee
Dress: Smart Casual
Closing Banquet will be held at Hotel Nikko Kanazawa as a final to IPS 2018.
Fee is included in registration fee and the banquet is open to all registered participants.
Banks/ATMs
Banks are open from Monday to Friday, 9:00-15:00 (Closed on Saturdays, Saturdays, and national holidays). In 7-Eleven convenience stores have automatic teller machines (ATMs) that accept credit, debit and ATM cards issued outside Japan including Visa, Plus, MasterCard, Maestro, Cirrus, American Express and JCB cards with English user menu. Please note most Japanese banks’ ATM do not accept foreign cards.

Currency Exchange
A money exchange counter, Travelex, in Kanazawa station is available from 10:00 - 20:00 every day. It is just a few minutes’ walk from Ishikawa Ongakudo.

Climate
The temperature in Kanazawa in May typically ranges between 12-23 degrees centigrade (54-74F) during the day.

Electricity
100 volts alternating current at a frequency of 60 Hz. is used in Western Japan. The socket is type A, which has two flat plug holes.

Insurance
The Organizing Committee will assume no liability whatsoever for injury or damage to person or property during the congress. Please make your own arrangements for health insurance and any other necessary insurance.

Postal Service
Hotels often provide simple postage services. Post offices are open from Monday to Friday, 9:00 to 17:00.

Time
Japan Standard Time is 9 hours ahead of UTC (Coordinated Universal Time).

Tipping and Consumption Tax
Tipping is not customary in Japan. However, major restaurants or hotels may add a 10% to 15% service charge to your bill.
1. ANA Crowne Plaza Kanazawa
2. Hotel Nikko Kanazawa
3. Hotel Kanazawa
4. Dormy Inn Kanazawa
5. Via Inn Kanazawa
6. APA Hotel Kanazawa Ekimae
7. Daiwa Roynet Hotel Kanazawa
8. Kanazawa Manten Hotel Ekimae
9. Garden Hotel Kanazawa
10. Hotel Mystays Premier Kanazawa
11. Hotel Route-Inn Kanazawa Ekimae
Program at a Glance

Wednesday, May 9

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Lobby (1st Fl.)</td>
<td></td>
</tr>
<tr>
<td>9:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18:00</td>
<td></td>
<td>Welcome Party</td>
</tr>
<tr>
<td>19:00</td>
<td></td>
<td>[ Gojukken Nagaya, Kanazawa Castle ]</td>
</tr>
<tr>
<td>20:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21:00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thursday, May 10

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Concert Hall (2nd Fl.)</td>
<td>Morning Seminar 1</td>
</tr>
<tr>
<td>9:00</td>
<td></td>
<td>Alcon Pharma K. K. / Novartis Pharma K. K.</td>
</tr>
<tr>
<td>9:15</td>
<td></td>
<td>Oral Session 1</td>
</tr>
<tr>
<td>9:55</td>
<td></td>
<td>Structure and Function I</td>
</tr>
<tr>
<td>10:55</td>
<td></td>
<td>Poster Session 1</td>
</tr>
<tr>
<td>12:20</td>
<td></td>
<td>Poster Session 2</td>
</tr>
<tr>
<td>13:30</td>
<td></td>
<td>Luncheon Seminar 1</td>
</tr>
<tr>
<td>15:45</td>
<td></td>
<td>Afternoon Seminar 1</td>
</tr>
<tr>
<td>18:05</td>
<td></td>
<td>Oral Session 2</td>
</tr>
<tr>
<td>19:30</td>
<td></td>
<td>Dinner Party</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Optional)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[ Tsubajin ]</td>
</tr>
</tbody>
</table>

Opening Ceremony

18:30~20:30
**Friday, May 11**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Morning Seminar 2</td>
<td>Ishikawa Ongakudo Room 1</td>
</tr>
<tr>
<td>8:00-9:00</td>
<td>Santen Pharmaceutical Co., Ltd.</td>
<td>Concert Hall (2nd Fl.)</td>
</tr>
<tr>
<td>9:00</td>
<td>Poster Session 3</td>
<td></td>
</tr>
<tr>
<td>9:00-10:19</td>
<td>Perimetry II</td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>Oral Session 4</td>
<td></td>
</tr>
<tr>
<td>10:00-10:44</td>
<td>Machine learning methods</td>
<td></td>
</tr>
<tr>
<td>10:45-11:45</td>
<td>IPS Lecture</td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td>Luncheon Seminar 2</td>
<td>Ishikawa Ongakudo Room 1</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>Perimetry: Past, Present and Future</td>
<td>Concert Hall (2nd Fl.)</td>
</tr>
<tr>
<td>13:00</td>
<td>Conference Tour</td>
<td></td>
</tr>
<tr>
<td>13:15-17:15</td>
<td>[Kanazawa City]</td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td>Business Meeting</td>
<td></td>
</tr>
<tr>
<td>17:00-17:05</td>
<td>Closing Ceremony</td>
<td></td>
</tr>
<tr>
<td>18:00</td>
<td>Closing Banquet</td>
<td></td>
</tr>
<tr>
<td>18:30-21:30</td>
<td>[Hotel Nikko Kanazawa]</td>
<td></td>
</tr>
</tbody>
</table>
Program
Program

Thursday, May 10  Room 1 Ishikawa Ongakudo, Concert Hall (2nd Fl.)

8:00 ~ 9:00  Morning Seminar 1  HOW WE SHOULD MANAGE GLAUCOMA PATIENTS: ELDERLY AND MYOPIA

Chair: Tetsuya Yamamoto
Speaker:
- MANAGEMENT OF THE PERIMETRY IN ELDERLY GLAUCOMA PATIENTS  
  Megumi Honjo
- MANAGING PATIENTS WITH MYOPIA AND GLAUCOMA -HOW AI CAN HELP  
  Robert T. Chang

Sponsor: Alcon Pharma K. K. / Novartis Pharma K. K.

9:10  Opening Ceremony

9:15-9:51  Oral Session 1  Structure and Function I

Chair: Ulrich Schiefer
Makoto Nakamura

Speaker:
- O1-1  Structure-function correlation across the central visual field using pointwise comparisons and ganglion cell isocontours derived from pattern recognition  
  Michael - Kalloniatis
- O1-2  Structure-function in ocular disease using different psychophysical procedures  
  Jack Phu
- O1-3  Structure-function correlation consistent between normal and glaucomatous patients and improves with stimuli scaled to spatial summation area  
  Nayuta Yoshioka

9:55-10:51  Poster Session 1  Structure and Function II

Chair: Kazuhisa Sugiyama
Shinji Ohkubo

Speaker:
- P1-1  Evaluating the usefulness of MP-3 microperimetry in glaucoma patients  
  Masato Matsuura
- P1-2  Mapping the Central 10 Degrees Visual Field to the Optic Nerve Head using the Structure Function Relationship  
  Yuri Fujino
- P1-3  The relationship among macular inner retinal layer, retinal nerve fiber layer, and visual field sensitivity in gemination period of glaucomatous optic nerve damage.  
  Yoshio Yamazaki
- P1-4  Agreement of a nasal step border by a microperimeter with a temporal raphe by optical coherence tomography in glaucoma patients  
  Sotaro Mori
P1-5  The disc–fovea–temporal raphe angle is associated with the severity of glaucoma with a hemi-field defect
Takuji Kurimoto

P1-6  Relationship between rim width and nerve-fiber layer thickness in normal tension glaucoma.
Yoshinori Itoh

P1-7  Detection of early glaucomatous damage of the macula with OCT oriented perimetry in preperimetric glaucoma
Shinji Ohkubo

10:55-12:07  Poster Session 2  Imaging I
Chair: Balwantray C. Chauhan
Yoshio Yamazaki
Speaker:
P2-1  Retinal layer segmentation and clustering by spectral-domain optical coherent tomography in patient with open angle glaucoma
Shumpei Ogawa

P2-2  The effects of magnification correction or matching of axial length in normative database on early glaucoma detection by ganglion cell complex in eyes with long axial length
Tomomi Higashide

P2-3  Capability of asymmetry in macular ganglion cell layer/inner plexiform layer thickness by optical coherence tomography to detect preperimetric glaucoma.
Daisuke Takemoto

P2-4  Blood flow changes after trabeculectomy in and around the optic disc and the macula
Makoto Sasaki

P2-5  Correlation between optic disc vessel density and glaucoma severity : enhanced-depth imaging optical coherence tomography angiography study
Yuji Yoshikawa

P2-6  Relationship between Optical Coherence Tomography Angiography (OCTA) macular vessel density and visual field loss in glaucoma
Yusuke Nakatani

P2-7  The association between glaucomatous visual field defect, foveal avascular zone area and vessel density using swept-source optical coherence tomography angiography
Yosuke Miyasaka

P2-8  The association between change of radial peripapillary capillaries and disc hemorrhage occurrence in normal tension glaucoma
Koji Nitta

P2-9  Deep-layer microvasculature dropout in glaucoma
Kimikazu Sakaguchi
12:20 ~ 13:20  Luncheon Seminar 1  New Era in Perimetry

Chair: Aiko Iwase  
Speaker: HFA central testing and the new 24-2C  
Gary Lee  
A new SITA test – SITA Faster  
Anders Heijl  
Sponsor: Carl Zeiss Meditec Co., Ltd.

13:30-15:30  Aulhorn Educational Lecture

Chair: Chris A. Johnson  
Linda M. Zangwill  
Speaker:
1. Visual function testing - new concepts in research and education  
   Ulrich Schiefer
2. Computerized perimetry - a catalyst for glaucoma science and management  
   Anders Heijl
3. Glaucoma Imaging Today and Tomorrow  
   Balwantray C. Chauhan
4. New technology of perimetry  
   Chota Matsumoto

15:45 ~ 16:45  Afternoon Seminar 1  An Update on the detection and management of Glaucoma with swept source OCT Triton

Chair: Linda Zangwill  
Speaker: Clinical Application of Deep Optic Nerve Head and Peripapillary Imaging  
Tae Woo Kim
Swept-source optical coherence tomography for retinal nerve fiber layer optical texture analysis (ROTA)  
Christopher Leung  
Sponsor: TOPCON CORPORATION

16:50-18:02  Oral Session 2  Perimetry I

Chair: Mitchell Dul  
Sachiko Okuyama  
Speaker:
O2-1  Visual Field Abnormality Classification in the Ocular Hypertension Treatment Study 20 Year Follow-up (OHTS-3)  
John L Keltner
Determination of the intra-subject variability of visual field examinations in glaucoma patients
Judith Ungewiss

Agreement between multifocal pupillographic objective perimetry, Matrix and HFA in stroke
Ted Maddess

A comparison between the Compass fundus perimeter and the Humphrey Field Analyzer
Susan Ruth Bryan

Tablet derived Frequency-of-seeing curves for size-scaled spots in the central visual field
Algis J Vingrys

Divergence Measures between Normal Subjects and Glaucoma Patients with Mild Visual Loss using Threshold Automated Perimetry of the Full Visual Field
Gideon KD Zamba

18:05-18:29  Oral Session 3  Driving and Visual Field
Chair: Ulrich Schiefer
Aiko Iwase

Speaker:
O3-1  Relationship between local binocular visual field sensitivity and location of undetected driving hazards. Gaze-movement corrected analysis in simulated driving.
Makoto Araie

O3-2  Effect of simulated superior and inferior visual field loss on vehicle control performance in a driving simulator
Makoto Inagami
Program

Friday, May 11 Room 1 Ishikawa Ongakudo, Concert Hall (2nd Fl.)

8:00 ~ 9:00  Morning Seminar 2  Early detection and early treatment of PPG -Improvement of diagnostic skill and points of therapeutic intervention of PPG with using OCT-

Chair: Kazuhisa Sugiyama
Goji Tomita

Speaker: Utilization of OCT -Structural change detection of PPG
Ki Ho Park

Utilization of glaucoma inspection instrument -Diagnosis of PPG / Judgement of therapeutic intervention-
Toru Nakazawa

Sponsor: Santen Pharmaceutical Co., Ltd.

9:15-10:19  Poster Session 3  Perimetry II

Chair: Fritz Dannheim
Chota Matsumoto

Speaker:
P3-1  Visual field changes after vitrectomy for epiretinal membranes in glaucomatous eyes
Shunsuke Tsuchiya

P3-2  Usefulness of Clock Chart Driving Edition for self-checking the binocular visual field
Marika Yamashita

P3-3  Perimetry for Children or Mentally Handicapped
Fritz Dannheim

P3-4  Assessment of response reliability in visual field testing without using catch trials
Sachiko Okuyama

P3-5  Influence of Head tilted angle on Blind Spot location in Visual Field Test
Fumi Tanabe

P3-6  Contrast gain control in glaucoma under photopic and mesopic luminance conditions
Catarina A. R. Joao

P3-7  Dynamic color brightness adaptation abnormalities in early stages of glaucoma.
Muen Yang

P3-8  Estimating "True" Retinal Sensitivity from Time-series Visual Field Data Using Gaussian Process Regression
Eiji Murotani
10:20-10:44  **Oral Session 4  Machine learning methods**

  **Chair:** Andrew Turpin  
  Hiroshi Murata

  **Speaker:**
  O4-1  Development of a deep learning algorithm to diagnose glaucoma from fundus photography  
  Naoto Shibata

  O4-2  Deep Learning Approaches to Predict Standard Automated Perimetry Summary Metrics from SD-OCT Imaging  
  Mark Christopher

10:45-11:45  **IPS Lecture  Perimetry: Past, Present and Future**

  **Chair:** Chota Matsumoto

  **Speaker:** Perimetry: Past, Present and Future  
  Michael Wall

12:00 ~ 13:00  **Luncheon Seminar 2  OCT-Based Phenotyping of Eyes in Glaucoma Diagnostics**

  **Chair:** Makoto Araie

  **Speaker:** The Importance of Aging Effects in the Assessment of Structural Changes in Glaucoma  
  Balwantray C. Chauhan

  Detailed structural characteristics of the optic disc revealed by the Spectralis OCT  
  Tomomi Higashide

  **Sponsor:** Heidelberg Engineering GmbH
Program

Saturday, May 12 Room 1 Ishikawa Ongakudo, Concert Hall (2nd Fl.)

8:20 ~ 9:20   Morning Seminar 3  How should we evaluate the data provided by "imo"?
Chair: Chota Matsumoto
Speaker: What is imo?

Hiromasa Sawamura
Binocular visual field test with imo in clinical use.
Hiroki Nomoto
Sponsor: CREWT Medical Systems, Inc.

9:30-10:42   Oral Session 5  Imaging II
Chair: Christopher Leung
Kazuhisa Sugiyama
Speaker:

05-1 Influence of Bruch’s membrane opening area on OCT diagnostic accuracy
Lucas A Torres

05-2 Development of a large normative database to investigate physiological and pathological changes in the central retinal ganglion cell layer
Barbara Zangerl

05-3 Relationship between peripapillary retinal arteries angle and Ocular Response Analyzer waveform parameters
Shotaro Asano

05-4 Quantification of peripapillary nerve fibre elevation and its association with axial length in young healthy eyes
Masatoshi Tomita

05-5 Relationship between peripapillary choroidal thickness and tessellation in young healthy eyes
Yusuke Matsushita

05-6 Classification of macular shape of children on optical coherence tomography
Takehiro Yamashita

10:45-11:45   Poster 4 / Oral 6 Session  New Perimetry
Chair: Chris A. Johnson
Nobuyuki Shoji
Speaker:

P4-1 Evaluation of pupil fields using a newly developed perimeter in glaucoma patients
Kazuko Totsuka

P4-2 Effect of non-measurement eyes on the result of measurement eyes by the monocular visual field tests under binocular open view
Hiroyasu Goukon
P4-3  The investigation of the difference of central visual field sensitivity between monocular and binocular measurement by head-mounted perimeter  
Tomoyuki Kumagai

P4-4  Measurements of fixation eye movements during visual field test with head-mounted perimeter "imo".  
Takuya Ishibashi

P4-5  Influence of a Binocular Viewing Condition on Monocular Sensitivities Measured by imo® in Patients with Glaucoma  
Akemi Wakayama

P4-6  SMARTPHONE-BASED PERIMETRY FOR FAST AND LOW-COST VISUAL FIELD ACQUISITION  
Jan Stapelfeldt

06-7  Deploying virtual reality headgear and the foveation reflex to enhance the ergonomics of perimetry  
Bertil Damato

12:00 ~ 13:00  Luncheon Seminar 3  Anterior Segment OCT and Glaucoma  
Chair: Kazuhisa Sugiyama  
Speaker: Anterior Segment OCT and Glaucoma  
Tin Aung  

13:10-13:58  Oral Session 7  Structure and Function III  
Chair: Linda M. Zangwill  
Makoto Araie  

Speaker:  
O7-1  Focal lamina cribrosa defect in myopic eyes with non-progressive glaucomatous visual field defect  
Yu Sawada

O7-2  Using structural information to improve perimetric examination of the macular visual field in glaucoma  
Giovanni Montesano

O7-3  En face slab images of macula better accounts for visual functional outcomes compared with inner retinal thickness in eyes with optic neuritis  
Mari Sakamoto

O7-4  Inner retinal structure-function relationship within the central 20 degrees in retinitis pigmentosa  
Henrietta Wang
14:15-15:03  Oral Session 8  Perimetry III

Chair: Allison M. McKendrick
Ryo Asaoka

Speaker:
08-1 EVALUATION OF THE NEW THRESHOLD STRATEGY USING A VARIATIONAL BAYES MODEL
Satoshi Shimada

08-2 DENOISING VISUAL FIELDS USING AUTO-ENCODERS
Serife S. Kucur

08-3 Cluster Identification Algorithm (CIA)
Anca D. Demea

08-4 The usefulness of waveform parameters measured with the Ocular Response Analyzer to assess the progression of glaucoma
Shuichiro Aoki

15:05-16:05  Oral Session 9  Perimetry IV

Chair: Michael Wall
Takeshi Yoshitomi

Speaker:
09-1 ARREST: A new visual field test algorithm designed to improve spatial resolution and test time for moderate-advanced visual field damage.
Allison M McKendrick

09-2 Measuring Frequency of Seeing Curves On and Off Blood Vessels in Normal Eyes Using the Compass Perimeter Controlled by the OPI
Andrew Turpin

09-3 Robustness of area-modulated perimetric stimuli to increased intraocular straylight
Lindsay Rountree

09-4 The relationship between cortical receptive field size and eccentricity in V1, V2 and V3 of healthy individuals
Melissa E Wright

09-5 Visual function and adaptation from star- to sunlight in glaucoma: a case-control study
Nomdo M. Jansonius

17:00  Closing Ceremony