IRS Business Meeting 2015

29 June 12:00 – 13:30 at IUGG 2015
Prague, Czech Republic
Welcome

- Attending Commissioners (attending list)

<table>
<thead>
<tr>
<th>Name</th>
<th>First Name</th>
<th>Institution</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davies</td>
<td>Roger</td>
<td>U. of Auckland, NZ</td>
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<tr>
<td>Plucakeski</td>
<td>Peter</td>
<td>U. of Colorado, USA</td>
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<tr>
<td>Sonh</td>
<td>B.J.</td>
<td>U. of Sendai, Japan</td>
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<tr>
<td>Kinne</td>
<td>Stefan</td>
<td>MPI - HET</td>
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<tr>
<td>I.I</td>
<td>Zhengqian</td>
<td>RADI, CAS, China</td>
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<tr>
<td>Wahl</td>
<td>Martin</td>
<td>ETH ZURICH</td>
<td></td>
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<tr>
<td>Zhuravleva</td>
<td>Tatiana</td>
<td>ZSU Inst. of Atm.  Sci.</td>
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<tr>
<td>Trishchenko</td>
<td>Alexeeva</td>
<td>Canada Centre for Earth S.</td>
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<tr>
<td>Pfeifroth</td>
<td>Uwe</td>
<td>German Met. Service</td>
<td></td>
</tr>
<tr>
<td>Cox</td>
<td>Steve</td>
<td>NASA/GSFC</td>
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<tr>
<td>Lu</td>
<td>Quren</td>
<td>Inst. of Adv. Phys., CAS</td>
<td></td>
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<tr>
<td>Nakayama</td>
<td>Teruguki</td>
<td>JAXA/EORC</td>
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<tr>
<td>Orfopoulos</td>
<td>Lazaros</td>
<td>NASA-GSFC</td>
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<tr>
<td>Schumich</td>
<td>Werner</td>
<td>PHI0/ERCS</td>
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Visitor - Non IRC commissioner
Welcome

• Introduction of visitor

Werner Schmutz welcomes the former IRC president:

Prof. Teruyuki Nakajima

Teruyuki Nakajima is elected as the Secretary-General of IAMAS for the period of 2015-2019. The election was during the second IAMAS Executive Business Meeting (EC-2) on Friday 26 June at IUGG 2015.
Welcome

Approval of Agenda: The agenda was approved

1. *Welcome (Schmutz)*
   *Introduction of Commissioners and Guests*

2. Approval of Agenda (Schmutz)
3. President’s Report (Officers)
   a) Remembrances
   b) Treasurer’s Report
   c) Web site Update
   d) Recent IRC Activities (Publications, Recommendations, Meetings)

5. Working Group Status Updates (Pilewskie & Commissioners)
6. Highlights of IUGG Sessions of Interest (Contributed by Commissioners)
7. Report on IAMAS (Schmutz)
8. Other Business (Schmutz)
President’s Report

In Rembrance:

No notification about former commissioners who passed away since last BM.
President’s Report

Treasurer’s Report (Peter Pilewskie):

2014-2015 Budget Summary  All transaction amounts in USD

Roger Davies highlights that IRC may request IAMAS for financial support when necessary, IAMAS has a budget for supporting commissions.

<table>
<thead>
<tr>
<th>Date</th>
<th>Transaction</th>
<th>Amount</th>
<th>Fees</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>12/3/2013</td>
<td>Transfer from IRC Secretary Sohn</td>
<td>14255.00</td>
<td>-16.00</td>
<td>14239.00</td>
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<tr>
<td>14/8/2013</td>
<td>2013 IRC BM Food Payment</td>
<td>-850.69</td>
<td>-25.52</td>
<td>13362.79</td>
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<td>18/3/2014</td>
<td>Proceeds from IRS 2012</td>
<td>6422.68</td>
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<td>19785.47</td>
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<td>30/6/2014</td>
<td>Cumulative Interest (30 June 2014)</td>
<td>8.67</td>
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<td>19794.14</td>
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<td>2/8/2014</td>
<td>Transfer to Sohn: web host payments</td>
<td>-291.08</td>
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<td>19503.06</td>
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<td>11/8/2014</td>
<td>2014 IRC BM Food Payment</td>
<td>-110.74</td>
<td></td>
<td>19392.32</td>
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<tr>
<td>31/5/2015</td>
<td>Cumulative Interest (31 May 2015)</td>
<td>6.56</td>
<td></td>
<td>19398.88</td>
</tr>
</tbody>
</table>
Web Site:

- The Web-Site is now updated -> IRS2016, change of Rapporteurs
- Please advertise upcoming events on the IRC webpage (http://www.irc-iamas.org/) by contacting Luca (legli@irc-iamas.org)
President’s Report

Recent IRC Activities:

- **Publications:** No IRC publications

- **Recommendations:** No IRC recommendations

- **Future Meetings:**
  IRS2016 in Auckland, New Zealand
  (see presentations of Roger Davies, slides 10 – 27, and www.irs2016.org)

- **Past meetings:**
  COSPAR, Moskow 2-10 August 2014
  (IRC BM 2014)
Status of IRS 2016

• Presentation by the chair of the Local Organizing Commitee of IRS2016: Roger Davies, New Zealand.
The venue

• State-of-the-art conference facilities in the city centre
The venue

- Owen G. Glenn Building at the University of Auckland
The venue

- Equipped with the latest technology and teaching facilities. With five lecture theatres for up to 569 people, four 70-seat rooms and 16 seminar and meeting rooms.
Connected to the world

• 336+ weekly international flights into Auckland
• 18 international airlines fly direct from 32 cities around the world
2nd Announcement Imminent

• Sent to those who expressed interest: currently 274
  – and to all on the original list who haven’t expressed interest (yet)

• Call for abstracts: due 1 October

• Registration opens

• List of session descriptions and conveners

• Requests for partial support solicited
## Registration Fees

<table>
<thead>
<tr>
<th>Event</th>
<th>Fee</th>
<th>Local Currency</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRS2012</td>
<td>360 euro</td>
<td>586 $NZ</td>
<td></td>
</tr>
<tr>
<td>AMS2014</td>
<td>575 $US</td>
<td>838 $NZ</td>
<td>(no dinner, reception)</td>
</tr>
<tr>
<td>IUGG2015</td>
<td>610 euro</td>
<td>1000 $NZ</td>
<td>(no dinner)</td>
</tr>
<tr>
<td>IRS2016 (proposed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>includes dinner, reception</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>700 $NZ</td>
<td>regular</td>
</tr>
<tr>
<td></td>
<td></td>
<td>350 $NZ</td>
<td>student</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 $NZ</td>
<td>accompanying</td>
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*Includes dinner, reception.*
Publication/abstract Fees

- Abstract submission    $20NZ/abstract
- Publication in Proceedings (perpetual open access)  
  $40US /paper
<table>
<thead>
<tr>
<th>Session number</th>
<th>Session title</th>
<th>Convener and co-conveners</th>
</tr>
</thead>
</table>
| 1              | Topical Union Session                             | Werner Schmutz (SUI)  
wschmutz@irc-iamas.org                                                                                 |
| 2              | Radiative Transfer Theory and Modeling            | Bernhard Mayer (GER)  
bernhard.mayer@dlr.de  
Alexander Marshak (USA)  
Alexander.Mashak@nasa.gov                                                                                   |
| 3              | Particle Radiative Properties                     | Teruo Aoki (JPN)  
teaoki@mri-jma.go.jp  
Hiroshi Ishimoto (JPN)  
hiroishi@mri-jma.go.jp  
Paolo di Girolamo (ITA)  
paolo.digirolamo@unibas.it                                                                                   |
| 4              | General Remote Sensing                            | Allen Larar (USA)  
allen.m.larar@nasa.gov  
Bill Smith (USA)  
bill.l.smith@cox.net  
Carmine Serio (ITA)  
carmine.serio@unibas.it  
Daren Lu (CHN)  
ludr@mail.iap.ac.cn                                                                                 |
| 5              | Understanding Climate Using Satellite Data        | Graeme Stephens (USA)  
Graeme.Stephens@jpl.nasa.gov  
Claudia Stubenrauch (FRA)  
stubenrauch@lmd.polytechnique.fr                                                                                 |
| 6              | Surface Measurements and Field Experiments       | Bruce Forgan (AUS)  
B.Forgan@bom.gov.au  
Hayasaka Tadahiro (JPN)  
tadahiro@m.tohoku.ac.jp                                                                               |
<table>
<thead>
<tr>
<th>Session number</th>
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<th>Convener and co-conveners</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Topical Union Session</td>
<td>Werner Schmutz (SUI) <a href="mailto:wschmutz@irc-iamas.org">wschmutz@irc-iamas.org</a></td>
</tr>
<tr>
<td>2</td>
<td>Radiative Transfer Theory and Modeling</td>
<td>Bernhard Mayer (GER) <a href="mailto:bernhard.mayer@dlr.de">bernhard.mayer@dlr.de</a> Alexander Marshak (USA) <a href="mailto:Alexander.Marshak@nasa.gov">Alexander.Marshak@nasa.gov</a></td>
</tr>
<tr>
<td>3</td>
<td>Particle Radiative Properties</td>
<td>Teruo Aoki (JPN) <a href="mailto:teaoki@mri-jma.go.jp">teaoki@mri-jma.go.jp</a> Hiroshi Ishimoto (JPN) <a href="mailto:hiroishi@mri-jma.go.jp">hiroishi@mri-jma.go.jp</a> Paolo di Girolamo (ITA) <a href="mailto:paolo.digirolamo@unibas.it">paolo.digirolamo@unibas.it</a></td>
</tr>
<tr>
<td>4</td>
<td>General Remote Sensing</td>
<td>Allen Larar (USA) <a href="mailto:allen.m.larar@nasa.gov">allen.m.larar@nasa.gov</a> Bill Smith (USA) <a href="mailto:bill.l.smith@cox.net">bill.l.smith@cox.net</a> Carmine Serio (ITA) <a href="mailto:carmine.serio@unibas.it">carmine.serio@unibas.it</a> Daren Lu (CHN) <a href="mailto:ludr@mail.iap.ac.cn">ludr@mail.iap.ac.cn</a></td>
</tr>
<tr>
<td>5</td>
<td>Understanding Climate Using Satellite Data</td>
<td>Graeme Stephens (USA) <a href="mailto:Graeme.Stephens@jpl.nasa.gov">Graeme.Stephens@jpl.nasa.gov</a> Claudia Stubenrauch (FRA) <a href="mailto:stubenrauch@lmd.polytechnique.fr">stubenrauch@lmd.polytechnique.fr</a></td>
</tr>
<tr>
<td>6</td>
<td>Surface Measurements and Field Experiments</td>
<td>Bruce Forgan (AUS) <a href="mailto:B.Forgan@bom.gov.au">B.Forgan@bom.gov.au</a> Hayasaka Tadahiro (JPN) <a href="mailto:tadahiro@m.tohoku.ac.jp">tadahiro@m.tohoku.ac.jp</a></td>
</tr>
<tr>
<td>7</td>
<td>Radiation Budget and Forcing</td>
<td>Martin Wild (SUI) <a href="mailto:martin.wild@env.ethz.ch">martin.wild@env.ethz.ch</a> Peter Pilewskie (USA) <a href="mailto:peter.pilewskie@lasp.colorado.edu">peter.pilewskie@lasp.colorado.edu</a> Arturo Sanchez-Lorenzo (ESP) <a href="mailto:arturo.sanchez@ipe.csic.es">arturo.sanchez@ipe.csic.es</a> Stefan Kinne (GER) <a href="mailto:stefan.kinne@mpimet.mpg.de">stefan.kinne@mpimet.mpg.de</a></td>
</tr>
<tr>
<td>8</td>
<td>Weather, Climate and Environment Applications</td>
<td>Allen Huang (USA) <a href="mailto:allenh@ssec.wisc.edu">allenh@ssec.wisc.edu</a> Zhang Hua (CHN) <a href="mailto:huazhang@cma.gov.cn">huazhang@cma.gov.cn</a></td>
</tr>
<tr>
<td>9</td>
<td>Solar UV Radiation</td>
<td>Mario Blumthaler (AUT) <a href="mailto:mario.blumthaler@i-med.ac.at">mario.blumthaler@i-med.ac.at</a> Julian Groebner (SUI) <a href="mailto:julian.groebner@pmodwrc.ch">julian.groebner@pmodwrc.ch</a> Richard McKenzie (NZ) <a href="mailto:Richard.McKenzie@niwa.co.nz">Richard.McKenzie@niwa.co.nz</a></td>
</tr>
<tr>
<td>10</td>
<td>Ocean Optics</td>
<td>Knut Stamnes (USA) <a href="mailto:Knut.Stamnes@stevens.edu">Knut.Stamnes@stevens.edu</a></td>
</tr>
<tr>
<td>11</td>
<td>Southern Ocean and Antarctica: Radiation, Clouds, Aerosols and Sea-Ice</td>
<td>Roger Davies (NZ) <a href="mailto:r.davies@auckland.ac.nz">r.davies@auckland.ac.nz</a> Greg McFarquhar (USA) <a href="mailto:mcfarq@illinois.edu">mcfarq@illinois.edu</a> Adrian McDonald (NZ) <a href="mailto:adrian.mcdonald@canterbury.ac.nz">adrian.mcdonald@canterbury.ac.nz</a></td>
</tr>
<tr>
<td>12</td>
<td>Ice clouds: light scattering, remote sensing, radiation parameterization</td>
<td>Ping Yang (USA) <a href="mailto:pyang@tamu.edu">pyang@tamu.edu</a> Anthony Baran (UK) <a href="mailto:anthony.baran@metoffice.gov.uk">anthony.baran@metoffice.gov.uk</a></td>
</tr>
</tbody>
</table>
Session 2: **Radiative Transfer Theory and Modeling**  
Conveners: *Bernhard Mayer*, Alexander Marshak

We invite papers on radiative transfer (RT) theory and its atmospheric and surface applications. We are interested in aspects of solar and infrared radiation and expect papers on methods for identifying errors and limits of various RT methods in climate and remote sensing studies. We strongly encourage papers on the use of RT theory for new and advanced active and passive remote sensing techniques including interpretation of hyperspectral measurements. Papers on modeling of cloud-aerosol interaction involving RT theory are very welcome. New technical approaches to interpret and analyze measurements of reflected, emitted, and scattered radiation in cloudy and clear atmospheres are also encouraged.
Session 3: **Particle Radiative Properties**

Conveners: **Teruo Aoki**, Paolo Di Girolamo, Hiroshi Ishimoto

The session aims to examine the current state-of-the-science and potential future directions in understanding and describing particle radiative properties excluding ice clouds, with a specific focus on theoretical, experimental and observational studies of atmospheric particle properties, both aerosols and cloud particles, and snow surface properties. Radiative properties such as extinction, scattering and absorption coefficients, single scattering albedo, asymmetry factor, and phase function of aerosol, cloud and snow particles in spectral regions from the ultraviolet to microwaves; relevant microphysical properties, like size distributions, refractive index, particle shape, mixture of components, particle hygroscopicity, effects of relative humidity and aerosol-snow interaction. Measuring methodologies, both in situ and remote, and temporal and spatial variations of these properties in the Earth's atmosphere are also important topics in this session. With respect to “ice clouds”, please see the separated session "Ice clouds: light scattering, radiometric & polarimetric remote sensing, and radiation parameterization".
Advanced remote sensing measurement systems are being employed for observing a wide variety of geophysical variables from ground-, aircraft-, and satellite-based platforms. These enable a wide range of research and operational applications including retrievals of the state of the atmosphere-surface system, depiction of atmospheric dynamics at various scales, and atmospheric composition and air quality. The evolving capabilities to make observations with increasing spatial resolutions and coverage and with increasing spectral resolution help to improve scientific understanding of physical processes and improve quality of the remotely sensed geophysical variables. This in turn should lead to improved environmental prediction capabilities. Abstracts are solicited on the following and related general remote sensing topics:

- observations of atmospheric state and composition from ground-, aircraft-, and satellite-based remote sensing instruments;
- methods for retrieving geophysical parameters, the influence of a priori information, and corresponding error estimation;
- remote sensing data fusion (multi-sensor, multi-platform, passive and active, remote and in-situ), and the impact on information content;
- analysis of methods using the spectral, angular, temporal and polarization radiation characteristics;
- sounding of the troposphere, stratosphere, and upper non-LTE atmosphere;
- multi-dimensional soundings, such as tomography and other approaches, and their evolution in time;
- new measurement/instrument/platform concepts and prototype demonstrations;
- results from remote sensing experiment laboratory instruments: relevant measurements, instrument characterization and testing;
- calibration techniques (spectral, radiometric, and spatial);
- calibration reference systems, their realization and benefit to (global) remote sensing observations;
- new remote sensing data sampling, processing, and compression methods;
- measurement system validation (sensor, algorithms, and data products);
- results of airborne and ground-based satellite measurement calibration/validation campaigns;
- research and operational techniques for enhancing the value of remote sensing data in weather, climate, chemistry, and air quality analysis and prediction applications;
Session 7: **Radiation Budget and Forcing**  
Conveners: **Martin Wild**, Peter Pilewskie, Arturo Sanchez-Lorenzo, Stefan Kinne

The radiation budget is a key parameter of the Earth’s climate system. Its components can be altered by anthropogenic and natural processes resulting in climate change. We invite papers on observations and modeling of the Earth and Surface Radiation budget as well as the variability of its components in space and time. We welcome papers which can improve our understanding and quantitative characterization of the radiative forcing by solar irradiance, atmospheric species, clouds and aerosol. Papers based on the comparison of the simulated radiation budget with observation data are encouraged. Special attention will be paid to the following key issues: the results of recent satellite experiments CERES and GERB; cloud, surface albedo and direct/indirect aerosol radiative forcing; uncertainties in the anthropogenic and natural forcing; validation of the Earth/Surface radiation budget retrieved from the data acquired by ground-based/satellite instruments as well as from climate simulations and reanalyses; and energy budget/water cycle interactions.
Session 8: Weather, Climate and Environment Applications
Conveners: Allen Huang, Zhang Hua

Session papers are solicited for topics, key issues, emerging, and innovative applications that are of interest to IRS but not limited to:

1. The use of radiation measurements to facilitate weather, climate and environment study, applications and forecasting.
   Implementation, validation and comparison of radiative transfer parameterization within weather, climate, and environment models.
   Technique and results of assimilating radiation quantities into weather, air quality forecast and climate models.
   Impacts of radiative processes on weather, climate and climate forecasting and modeling.
   The prediction and validation of radiation quantities from weather and climate models.
   Verification of model simulations of radiation and other meteorological and climate variables.
   Scaling of sub-grid radiative processes into large scale climate models (e.g. local aerosol sources, open leads in Arctic and Antarctic waters).
   Role of radiation measurements in Air quality monitoring, modeling, and forecasting.

2. Radiative processes in weather, climate, and environment, and their consequences (e.g., cloud-climate interactions, aerosol-chemistry-climate interactions, atmosphere-ocean interactions)
   Climate variations and changes due to natural and anthropogenic radiative forcings; climate feedbacks and sensitivity, global and regional changes, impacts on the hydrologic cycle, and comparisons of model simulations with observations.
   Diagnostic analyses of the weather and climate system utilizing model simulations and observations (e.g., space-borne and ground-based) on a variety of spatial and temporal scales.
   Specific radiative effects and interactions of aerosol, clouds and atmospheric gases in weather and climate modeling.

3. Global and regional radiation climatologies
   Detection and characterization of climate trends/changes.
   Regional trends/changes in radiation regimes and their environmental impacts.
   Climate data record management, access, quality control, and stewardship.

4. Other topics such as
   Design, development, and implementation of future weather/climate/environment sensor systems.
   National and international weather/climate/environment research program and initiative
   Other general climate studies that are related to climate variability and changes, such as those on climate analysis method, data quality, new data sets, observation systems, etc.

5. Other key issues, emerging and innovative applications such as
   Improvements in weather, climate and air quality forecasts as a consequence of improved parameterization of radiative process guided by theoretical knowledge and observations.
   Variations in radiation, hydrologic and other climate variables on timescales ranging from seasonal to interannual, and to interdecadal, with implications for climate sensitivity.
   Impact of clouds, aerosol, greenhouse gases, and solar forcings on Earth’s climate change, including comparisons of simulations with observations.
   Growing needs for the long term high quality climate data records and improved climate sensor system and coordinated research and operational program.
   Emerging applications in renewable energy management, hazard monitoring, carbon cycle, pollution and other real-time weather and environment events.
   Leveraging High Performance Computing (HPC) for accelerated use of radiation measurements for various time consuming and complicated modeling, data assimilation and forecasts.
Session 9: **Solar UV Radiation**
Conveners: Mario Blumthaler, Julian Groebner, and Richard McKenzie

Papers are invited with the focus on: new systems and methods for determination of Solar UV radiation from ground and from space; development of UV instruments and networks; climatological and case study investigations of the spectral, temporal and spatial variability of solar UV radiation due to variable atmospheric conditions (e.g. aerosols, clouds, ozone); effects of solar UV on men (beneficial and harmful), biosphere and air chemistry.
The Southern Ocean plays a key role in the global climate system through its interaction with Antarctica, and strongly affects the climate of all Southern Hemisphere land regions. It is extremely cloudy by global standards, and appears to have very high amounts of natural marine aerosol loading, yet has minimal contributions from anthropogenic aerosols compared to regions at equivalent latitudes in the Northern Hemisphere. The relative absence of conventional observations presents a challenge to the modeling of cloud-aerosol-radiative-sea ice interactions, and lowers the quality of reanalysis data for this region. Existing remote sensing observations and the limited in-situ data suggest that mixed-phase and supercooled clouds are ubiquitous, but models poorly represent these clouds, particularly in the cold sector of cyclonic storm systems. Thus, their radiative impact is largely unknown. We seek presentations that address the remote sensing of cloud, aerosol, sea-ice and related properties of this region, including Antarctica, as well as studies of radiative interactions in a broader context that help to advance our knowledge of Southern Ocean climate.
Budget Details: fixed

• Fixed Costs ($NZ)
  • Administration $8,000
  • Conference Facilities $3,300
  • Marketing $2,700 $2,800
  • Social events $7,000 $12,500
  • Publishing $4,000
• Total Fixed Costs $21,000 $30,600
Budget Details: variable

- Gross Average Registration Income per delegate: $680
- Variable Costs per delegate ($NZ):
  - Coffee and lunch: $220
  - Dinner: $110
  - Reception: $39
  - Materials: $32
  - Administration: $12
  - IRC revenue: $35
- Total variable costs per delegate: $448
- Difference applied to fixed costs: $232
Status of IRS 2016

- Remarks of commissioners
  
  - Deadline for registration should be determined according to US and Canada needs (their administration need some time for approval of travel).
  
  - Extra booking such as excursions etc. should be able with private credit card in a separate form.
  
  - Accommodation: A list of hotels with possible reduced rates for conference attendees will be appreciated.
IRC Business Meeting

• Next IRC Business Meeting 2015:

IRS 2016 Auckland New Zealand (determined)

16-22 April 2016 (specific date will be communicated later)
Working Group Status

Peter Pilewskie:
• Update on WG status
Working Group Status Updates

Updates on two Working Groups that did not submit reports from 2013-14:

- Atmospheric Spectroscopy Applications (ASA)
- International Coordination group for Laser Atmospheric Studies (ICLAS)
Atmospheric Spectroscopy Applications (ASA)

Chair: Larry Rothman  Co-Chair: Alain Barbe

Major international conference every other year in Cambridge, MA, USA, or University of Reims in France.
For the past five years ASA conferences have been combined with the HITRAN biennial conference.
The previous meeting took place at the Harvard-Smithsonian in June 2014:
See https://www.cfa.harvard.edu/hitran/13thHITRAN.html for abstracts, presentations, and attendee list.

Prof. Alain Barbe is ASA co-chair.
Very good team to continue these efforts.
Dr. Maud Rotger of his group is now the focal point of the ASA part of this year’s meeting in Reims.
Atmospheric Spectroscopy Applications (ASA)

Next meeting:
24-26, August 2016, University of Reims
~ 100 participants

The ASA-HITRAN 2016 Congress will be held at the University of Reims in France August 24-26, 2016. The event will focus on atmospheric spectroscopy and its applications in Aeronomy, Planetary Science, Database Management Systems, and more. Contact: maud.rotger@univ-reims.fr
The 27th ILRC will take place in New York City and will be hosted by the National Oceanic and Atmospheric Administration (NOAA) Cooperative Remote Sensing Science and Technology (CREST) Center and the City College of the City University of New York. The conference venue is the historic Great Hall in the Shepard Hall of the City College of New York campus. The City College of New York is located in the northern part of the Manhattan island at 138th Street and Convent Ave, and is easily accessible from midtown and the area airports by various public and private transportation systems.

ILRC 27 will cover a host of lidar related topics including:

- Advances in lidar techniques and new methodologies
- Atmospheric winds and turbulence, and applications in wind energy
- Atmospheric boundary layer dynamics
- Advances in aerosol monitoring and retrievals
- Cloud detection, characterization and classification
- Aerosol direct and indirect effects and radiation budget
- Lidar for atmospheric trace gas monitoring (water vapor, ozone, CO₂, CH₄, and other GHGs)
- Tropospheric and lower stratospheric dynamics and transport
- Middle and upper atmosphere physics and chemistry
- Hazard monitoring (civilian and defense applications)
- Space-based missions and validation
- Coordinated lidar networks and applications
- Combining lidar measurements and analysis with other active and passive techniques
- Assimilation of observations into forecast models
- Lidar application to marine and ecosystem monitoring/classification
- Advances in ranging and applications
- Lidar applications to land surface monitoring (elevations and terrain maps, vegetation canopy, etc.)
International Coordination group for Laser Atmospheric Studies (ICLAS)

Steering Committee
- Fred Moshary - Co-Chair (City College of NY and NOAA CREST Center) moshary@ccny.cuny.edu
- M. Patrick McCormick - Co-Chair (Hampton Univ. and NOAA CREST Center)*
- Xinzhao Chu (Univ of Colorado)
- Paolo Di Girolamo (Universita della Basilicata, Italy)
- R. Michael Hardesty (Cires, U. of Colorado)
- Reza Kheirandish (City College of NY and NOAA CREST Center)
- Eduardo Landulfo (Instituto de Pesquisas Energéticas e Nucleares, Brazil)*
- Gelsomina Pappalardo (Institute of Methodologies for Environmental Analysis (CNR-IMAA), Italy)
- Upendra Singh (NASA LARC)*
- Kevin Strawbridge (Environment Canada)*
- Nobuo Sugimoto (National Inst. for Environmental Studies, Japan)
- Ulla Wandinger (Leibniz Institute for Tropospheric Research, Germany)

ICLAS Executive Committee
- Upendra N. Singh, President (NASA LARC)
- Robert T. Menzies, Past President (NASA JPL)
- M. Patrick McCormick, Treasurer (Hampton Univ.)

Program Committee
- Barry Gross-Chair (City College of NY and NOAA CREST Center) gross@ccny.cuny.edu
- Andreas Behrendt (Universitaet Hohenheim, Germany)*
- Sergey Bobrovnikov (Institute of Atmospheric Optics)*
- Ronald Calhoun (Arizona State U)
- Adolfo Comeron (Universitat Politecnica de Catalunya, Barcelona Spain)
- Ruben Delgado (UMBC and NOAA CREST Center)
- Belay Demez (UMBC)
- Ferdinando DeTomasi (Universita del Salento, Italy)*
- Edan Eloranta (Space Science and Engineering Center, U. Wisconsin)
- Jonathan Freedman (Areteco National Observatory)
- Bruce Gentry (NASA GSFC)
- Gary Gimmestad (Georgia Tech.)
- Floyd Hovis (FiberTech)
- Robert Menzies (NASA JPL)
- Dellef Muller (University of Hertfordshire, UK)
- Michael Newchurch (Univ. of Alabama Huntsville)
- Doina Nicolae (National Inst. of R & D for Optoelectronics, Romania)*
- Alexandros Papayannis (Nat. Technical University of Athens, Greece)*
- Joseph Shaw (Montana State U)
- Christoph Senff (NOAA ERL)*
- Anne Greete Straume-Lindner (ESA – ESTEC, Netherlands)
- Sara Tucker (Ball Aerospace)
- Igor Vescovski (Physics Instrumentation Center, Troitsk, Moscow)
- Yingqian Wang (Anhui Institute of Optics and Fine Mechanics, China)*
- Stuart Young (CSIRO Marine and Atmospheric Research, Australia)

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Other Contacts
General Inquiries: ilrc27ny@gmail.com
Shakila Merchant (Administrative Director of NOAA CREST Center)
smerchant@ccny.cuny.edu

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To Propose special sessions and themes, contact Dr. Barry Gross, Chair of the Program Committee
* ICLAS member
From ICLAS Member Christoph Senff:

ICLAS is still alive. I know that one of our former ICLAS members, Paolo diGirolamo, attended an IRC meeting a few years back. He rotated off the ICLAS in 2012 and it appears that no one from the ICLAS has been in contact with the IRC since.

The ICLAS will meet in 2 weeks at the upcoming International Laser Radar Conference (ILRC) and I will bring this issue to everybody's attention.
Attending commissioners propose updates, changes or new working groups:

Decision:

IRC will wait until further response of the working groups. Elsewise a cancellation of the WG will be decided at the BM 2016 in Auckland (at IRS 2016).
Highlights of IUGG

Commissioner’s summaries and recommendations:

No summaries or highlight of IUGG communicated.
Report on IAMAS

• EC-Meeting at IUGG 2015 (23 Thursday & Friday 26)

• Farewell for former IAMAS president Athena Coustenis and former General Secretary Hans Volkert.

• Election of new IAMAS president John Turner and new Secretary-General Prof. Teruyuki Nakajima.

• Discussion of a resolution for IUGG (the resolution will be discussed in future).

• Next IAMAS meeting will be at the joint assembly of IAGA-IAMAS-IAPSO in Capetown South Africa 26 August – 2 September 2017.

IRC commissioners are encouraged to send proposals to convene sessions at this assembly to the IRC president (wschmutz@irc-iamas.org).
Other Business

B.J. Sohn presents the IRC awards at IRS 2016

See following slides
2015 IRC Business Meeting

Selection of Awards Committee

i. Gold medal (1)

ii. Young Scientist (1 or 2)

B.J. Sohn, SNU/Seoul Korea
IRC Vice-president

IUGG Prague, June 29, 2015
Types of Award

**IRC Gold Medal:** This award is designed to honor a senior scientist who has made contributions of lasting significance to the field of radiation research.

**IRC Young* Scientist Award:** This award consists of a $1000 cash award to a young scientist who has made recent noteworthy contributions to radiation studies and is regarded as having great potential to become a leading radiation scientist in the future.

* Guidelines suggest that candidates for the young scientist award be
  (a) within 10 years of having received the PhD degree;
  (b) under 40 years of age.

at the time of nomination.
Medal

Busan 2004 : Richard Goody
Iguazu 2008 : Grame Stephens
Berlin 2012 : Kuo-Nan Liou
Nomination

Candidates for the awards are to be nominated by IRC members.

The nomination package is to consist of
– the candidate's CV, and
– letter of recommendation from the proposing IRC member.

The nomination package should be sent to the
→ IRC Vice President (copied to the IRC Secretary).
Award Committee

The selection of the prize winners is performed by the IRC Awards Committee consisting of:

- IRC officers;
- 2 former IRC presidents;
- 2 senior scientists.

The Committee is chaired by the IRC Vice President.
The members are appointed by the Vice President in consultation with the two other IRC officers.

IRC members can propose members for the Awards Committee to the IRC Vice President.
Award Ceremony

The Awards Ceremony will take place during the quadrennial International Radiation Symposium.

IRS 2016 in Auckland

The awardees are expected to present a lecture as part of the ceremony.
Timeline

July 1 - Sept 1, 2015:
   Organizing the Committee (3 IRC officers, 2 Former Presidents, 2 Senior scientists)
Sept 1, 2015: Call for awards
Oct 15, 2015: Recommendation closed
Nov 30, 2015: Selection completed
Dec 15, 2015: Notification
IRC Business Meeting 2015 closed