

# International Meteor Conference

Egmond, the Netherlands, June 2-5, 2016



## CONFERENCE PROGRAM

### THURSDAY, June 02

<b>14:00 - 19:00</b>	Arrival and registration IMC participants
<b>19:00 - 20:00</b>	Welcome reception & speeches
<b>20:00 - 21:00</b>	Dinner
<b>21:00 - ...</b>	Parallel Program
	Option A - Free entertainment
	Option B – Workshops
	21:00 – 21:45 Meteor Spectroscopy
	21:45 – 22:30 Microscopic view inside meteorites

### FRIDAY, June 03

<b>07:30 - 08:30</b>	Breakfast
<b>08.55 - 09.00</b>	Local announcements

#### SESSION 1 - Meteor showers & sporadic background I: video & radio

*Chair: Damir Šegon*

09:00 – 09:12	Peter Jenniskens: Results from the CAMS video network
09:12 – 09:24	Joel Younger: Radar Observations of the Volantids Meteor Shower
09:24 – 09:36	Giancarlo Tomezzoli: No sign of the 2015 Daytime Sextantids through Combined Radio Observations
09:36 – 09:48	Paul Roggemans: Update CAMS Benelux 2015-2016
09:48 – 10:00	Przemysław Żołądek: Taurids 2015
10:00 – 10:12	Ljubica Grašić: Video Meteor Light Curve Analysis of Orionids and Geminids
10:12 – 10:24	Ivica Skokić: On the accuracy of orbits from video meteor observations

#### SESSION 2 - Meteor showers & sporadic background II: visual

*Chair: Sirko Molau*

10:24 – 10:36	Juergen Rendtel: Minor meteor shower activities
10:36 – 10:48	Thomas Weiland: 2014 Southern Delta-Aquariid Observing Campaign - carried out from Crete

**10:48 - 11:24** Coffee break & Poster Session

#### SESSION 3 - Fireballs and meteorite recovery

*Chair: Sebastiaan de Vet*

11:24 – 11:36	Pavel Spurny: EN091214 Zdar - one of the most precisely documented meteorite fall
11:36 – 11:48	Vincent Perlerin: The tale of two fireballs
11:48 – 12:00	Daniele Gardiol: Italian Network for Meteors and Atmospheric Studies (PRISMA)
12:00 – 12:12	Lukas Shrbeny: Fireballs from Australian Desert Network
12:12 – 12:24	Jiri Borovicka: Photographic spectra of fireballs
12:24 – 12:36	Manuel Moreno-Ibáñez: Current progress in the understanding of the physics of large bolides recorded by photographic and digital fireball networks
12:36 – 12:48	Ana Georgescu: The evolution of ROAN 2016 - Radio surveillance of meteors and determination of reflexion points through calculation of the radio path, based on times
12:48 – 13:00	Francois Colas: FRIPON Network Status

**13:00 - 14:00** Lunch

## SESSION 4 - Observing techniques I

Chair: Dušan Pavlović

- 14:00 – 14:12 Auriane Egal: The challenge of meteors daylight observations  
14:12 – 14:24 Sirko Molau: Flux density, population index, perception coefficient, and the Moon  
14:24 – 14:36 Pavel Koten: Simultaneous analogue and digital observations and comparison of results  
14:36 – 14:48 Meryem Guennoun: Results with the exact observing direction  
14:48 – 15:00 Alexander Bagrov: Easy way to estimate meteor brightness on TV frames  
15:00 – 15:12 Tom Roelandts: The radio meteor signal path from transmitter to spectrogram: an overview  
15:12 – 15:24 Lorenzo Barbieri: An antenna, a radio, a microprocessor: which observations in amatory meteor radio astronomy?

## SESSION 5 – Parent bodies, meteoroids, meteorites, planets and their relation

Chair: Denis Vida

- 15:24 – 15:36 Abedin Abedin: On the age and parent body of the daytime Arietids meteor shower  
15:36 – 15:48 Peter Brown: Recent Canadian Meteor Orbit Radar detected meteor shower outbursts

**15:48 - 16:24** Coffee break & Poster Session

## SESSION 6 - Numeric modelling

Chair: Rachel Soja

- 16:24 – 16:36 Daniel Kastinen: A statistical approach to the temporal development of orbital associations  
16:36 – 16:48 Jeremie Vaubaillon: A confidence index for the forecasting of the meteor showers  
16:48 – 17:00 Robert Marshall: Interpretation of Meteor Radar Head Echoes

## SESSION 7 – Atmospheric processes and phenomena

Chair: Jean-Louis RAULT

- 17:00 – 17:12 Masa-yuki Yamamoto: Space fireworks for upper atmospheric wind measurements by sounding rocket experiments  
17:12 – 17:24 David Čapek: Ablation of small Fe meteoroids  
17:24 – 17:36 Vlastimil Vojacek: Catalogue of meteor spectra  
17:36 – 17:48 Shinsuke Abe: Artificial Meteor Test towards On-demand Meteor Shower  
17:48 – 18:00 Simona Hristova: Exploring the relationship between meteor parameters based on a photographic data  
18:00 – 18:12 Jean-Louis RAULT: An attempt to explain VLF propagation perturbations associated with single meteors

**18:12 - 19:12** IMC Poster Session with all poster authors

**19:12 - 20:12** Dinner

**20:12 - 21:12** IMO GENERAL ASSEMBLY

**21:30 - ...**

Parallel Program

Option A - Free entertainment

Option B - Open session with discussion panel

Option C - Extended-talk Session I (21:30 – 22:20)

- 21:30 – 22:00 Pavel Spurny: Recent instrumentally documented meteorite falls  
22:00 – 22:10 Maria Gritsevich: Calibration of occasionally taken images using principles of perspective  
22:10 – 22:30 Maria Gritsevich: Consequences of meteoroid impacts based on atmospheric trajectory analysis

## SATURDAY, June 04

**07:30 - 08:30** Breakfast

**08.55 - 09.00** Local announcements

## SESSION 8 - Data pipelines & Software

Chair: *Christian Steyaert*

- 09:00 – 09:12 Thomas Albin: A Monte-Carlo based extension of the Meteor Orbit and Trajectory Software (MOTS) for computations of orbital elements
- 09:12 – 09:24 Denis Vida: Open-source meteor detection software for low-cost single-board computers
- 09:24 – 09:36 Pete Gural: A Fast Meteor Detection Algorithm
- 09:36 – 09:48 Theresa Ott: PaDe - The Particle Detection Program
- 09:48 – 10:00 Stijn Calders: The BRAMS Zoo, a citizen science project: current status
- 10:00 – 10:12 Hervé Lamy: Automatic detection of meteor echoes in BRAMS data: towards a final decision

**10:12 - 10:36** Coffee break & Poster Session

## SESSION 9 – Ongoing work, History & Miscellaneous

Chair: *Antonio Martinez Picar*

- 10:36 – 10:48 Damir Šegon: Croatian Meteor Network: ongoing work 2015-2016
- 10:48 – 11:00 Juraj Toth: Expedition Atacama - project AMOS in Chile
- 11:00 – 11:12 Regina Rudawska: ESA/ESTEC Meteor Research Group – behind the scenes
- 11:12 – 11:24 Iain Reid: 60 years of radio meteor studies at Adelaide University
- 11:24 – 11:36 Detlef Koschny: Height computation of a fireball
- 11:36 – 11:48 Eleanor Sansom: Meteor Reporting Made Easy- Fireballs in the Sky's smartphone app
- 11:48 – 12:00 Maria Gritsevich: Big Data Era in Meteor Science

**12:30** DEPARTURE FOR EXCURSION TO WORLD HERITAGE SITE **THE WADDENZEE**

**19:00 - 20:00** Dinner

**20:00 - 21:00** Parallel Program

Option A - Free entertainment

Option C - Workshop: Software for analysis of visual meteor data (20:00 – 20:45)

Option B - Extended-talk Session II (20:00 – 21:00)

20:00 – 20:20 Sirko Molau: Flux density, population index, perception coefficient, and the Moon

20:20 – 20:40 Pete Gural: A Fast Meteor Detection Algorithm

20.40 – 21:00 Daniel Kastinen: A statistical approach to the temporal development of orbital associations

**21:00 - ....** Last night of the IMC in the bar, free entertainment

## SUNDAY, June 05

**08:30 - 09:30** Breakfast

**09.55 - 10:00** Local announcements

## SESSION 5A – Parent bodies, meteoroids, meteorites, planets and their relation

Chair: *Denis Vida*

- 10:00 – 10:12 Ayub Guliyev: Meteor streams and comet disintegration

## SESSION 10 – Instruments

Chair: *Pete Gural*

- 10:12 – 10:24 Mariusz Wiśniewski: Current status of Polish Fireball Network
- 10:24 – 10:36 Hadrien Devillepoix: Status of the Desert Fireball Network
- 10:36 – 10:48 Chris Peterson: Evaluating video digitizer errors
- 10:48 – 11:00 Martin Dubs: Calibration of meteor spectra
- 11:00 – 11:12 Waleed Madkour: The KUT meteor radar: An educational low cost meteor observation system by radio forward scattering
- 11:12 – 11:24 Cezar Lesanu: ROAN Remote Radio Meteor Detection Sensor

**11:24 - 12:00** Coffee break

## SESSION 11 - Observing techniques II

Chair: *Francesco Ocaña*

12:00 – 12:12	Anna Kartashova: The complex meteor observations in 2014
12:12 – 12:24	Satoshi Mizumoto: Comprehensive observation of meteors combining with infrasonic, optic and radio scattering signals
12:24 – 12:36	Jakub Kákona: Meteor trajectory estimation from radio meteor observations
12:36 – 12:48	Margaret Campbell-Brown: Results from the Canadian Automated Meteor Observatory
<b>12:48 - 13:00</b>	Conference summary
<b>13:00 - 13:10</b>	Closing of the 35th IMC
<b>13:10 - 14:00</b>	Lunch
<b>14:00</b>	Departure of participants
<b>14:30</b>	Bus transfer to Schiphol Bus transfer to Meteoroids 2016

## POSTER PRESENTATIONS

1	FRIPON acquisition, detection and reduction pipe line	Francois Colas
2	Sungrazing comets and meteoroids	Eduard Pittich
3	CHIPOLIAtA results	Felix Bettonvil
4	An overview of the CILBO spectral observation program	Regina Rudawska
5	First results of the Swedish Allsky Meteor Network	Johan Kero
6	Polish Meteorites	Zbigniew Tymiński
7	The New IMO Website	Vincent Perlerin
8	Lifetimes of meteoroids	Rachel Soja
9	Data processing of records of meteoric echoes	Peter Dolinsky
10	The 2016 Quadrantids	Gaetano Brando
11	AMOS - trajectory and orbital data from SVMN and Canary Islands	Juraj Toth
12	AMOS-Spec - meteor spectra from Modra Observatory	Pavel Zigo
13	Synthetic spectra of meteors	Meryem Guennoun
14	The occurrence of interstellar meteoroids. Overview - 25 years of research	Maria Hajdukova
15	Meteor News	Paul Roggemans
16	Photometric Stellar Catalogue for TV meteor Astronomy	Alexander Bagrov
17	Video Meteor Light Curve Analysis of Orionids and Geminids	Ljubica Grašić
18	The role of population in tracking meteorite falls in Africa	Ibhi Abderrahmane
19	Asteroidal Meteors Detected by MU Radar Head-echo Observations	Shinsuke Abe
20	Meteors and meteorites spectra	Jakub Koukal
21	The added dimension of 3D scanning and printing of meteorites	Sebastiaan de Vet
22	Numerical simulation of BRAMS interferometer in Humain	Antonio Martinez Picar
23	Meteor spectra using high definition video camera in 2015	Yasunori Fujiwara
24	Hemispherical radiating pattern antenna design for radio meteor observation	Jakub Kákona
25	Novel methods for 3D numerical simulation of meteor radar reflections	Maria Gritsevich
26	Statistical approach to meteoroid shape estimation	Maria Gritsevich
27	Meteor detections at the Metsähovi Fundamental Geodetic Research Station (Finland)	Maria Gritsevich
28	ROAN 2016 - Progress	Tudor Georgescu
29	Investigation of meteor shower parent bodies using various metrics	Bogdan Dumitru

30	70 years KNVWS Werkgroep Meteoren	Urijan Poerink
31	Large meteoroids' impact damage: review of available impact hazard simulators	Manuel Moreno-Ibáñez
32	Measurements of CCD optical linearity for magnitude determination in meteor observations	Andrey Murtazov