

Radar Aeroecology: Applications and perspectives

ENRAM 1st International Conference

23-24 Feb 2017, Rome
Palazzo Massimo alle Terme,
Largo Villa Peretti, 2, 00185 Rome



Day 1 – Thursday February 23rd

09:00 - Registration

09:30 - Welcome to participants

Movements of birds and insects

Chair – Judy Shamoun-Baranes

- 09:40 **Thomas Alerstam** The radar revolution in bird migration research - old times and new
- 10:20 Kyle Horton Avian flight strategies, exploring how migrants cope with wind
- 10:35 Benjamin Van Doren Wind drift explains the reoriented morning flights of songbirds
- 10:50 Baptiste Schmid Spatial dynamics of broad front avian migration in topography

11:05-11:30 - Coffee break

Chair – Nir Sapir

- 11:30 **Rob Diel** From promise to product: unleashing the biological potential of weather radar
- 12:00 Felix Liechti Big Data - from a continent-wide radar surveillance to species specific migration patterns
- 12:15 Sandra Pletschet Factors influencing the accuracy of location estimates of avian roost rings based on weather surveillance radars
- 12:30 Jeffrey Kelly Variation in phenology of the Purple Martin's annual cycle observed with weather radar and eBird
- 12:45 Andrew Farnsworth Flight behaviour of nocturnally migrating birds at the Sept 11th tribute in light memorial

13:00-14:15 - Lunch

Chair – Jason Chapman

- 14:15 **Alistair Drake** Observing migrating insects with small special-purpose radars
- 14:45 Charlotte Wainwright The movement of small insects in the atmospheric boundary layer
- 15:00 Samuel Jansson Entomological laser radar: landscape scale detection of aerofauna
- 15:15 Valery Melnikov Insects in atmospheric convective plumes: a radar study
- 15:30 Hongqiang Feng Monitoring insect migration with X band radar in China

15:45-16:15 - Coffee break

Advances in radar methodology

Chair – Felix Liechti

- 16:15 **Elena Saltikoff** Why is the data from different radars so different?
- 16:45 Sidney Gauthreaux Detection of biological scatterers with L-band avian radar and S-band dual-polarization Doppler weather radar
- 17:00 Yann Tremblay What happens if the radar moves? Challenges, solutions, perspectives for at-sea ecology of seabirds
- 17:15 Shaoyang Kong Insect species identification based on modeling of biological parameters by support Vector Machine
- 17:30 Jan Blew Results of pencil beam and surveillance radar compared to German and Danish weather radar at the Baltic sea coast
- 17:45 Matti Leskinen Meteorology and biology - local features in weather radar echoes
- 18:00 Jarmo Koistinen Appearance and automatic classification of main bird migration types using dual polarimetric weather radars

18:15 - Speed posters presentation

Chair – José Alves

18:45 – Poster session and drinks

20:00 – Conference dinner

Day 2 – Friday February 24th

Applications

Chair – Giacomo Dell’Omo

- 09:15 Hans van Gasteren Operational use of radar in bird strike prevention
- 09:30 Isabel Metz Detect to avoid: Supporting aviation safety with bird movement information
- 09:45 Baoping Zhai Synoptic winds govern insect migration patterns: beyond radar perspective
- 10:00 Camille Assali Seabird distribution at sea observed by radars: patterns reveal network foraging
- 10:15 Pilvi Siljamo Numerical modelling of the pest insect migration in the atmosphere
- 10:30 Sevgi Zubeyde Classification techniques in bird radar
- 10:45 Luca Moiana Risk assessment of bird collision with power lines revealed the importance of the Central Mediterranean Corridor for bird migration

11:00-11:30 - Coffee break

Perspectives

Chair – Silke Bauer

- 11:30 **Jeff Buler** Unearthing ecology: linking animals aloft to the terrestrial landscape
- 12:00 Cecilia Nilsson A large scale analysis of the temporal and spatial pattern of nocturnal broad front migration along the West-European Flyway
- 12:15 Phillip Stepanian Multidecadal trends in insect, bat, and bird emergence phenology in the central USA
- 12:30 Adriaan Dokter Movement ecology going big: towards a large-scale perspective on the movements of migratory birds
- 12:45 Yossi Leshem Integrating radar measurements with other biological data. The Israeli Air Force test case (1984-2016)
- 13:00 *Judy Shamoun-Baranes* *Conclusions and highlights*

13:15-14:45 - Lunch

In the afternoon meeting of the ENRAM partners.

15:00-17:00 Guided visit to the Museum of Palazzo Massimo for the non-ENRAM attendees