



Workshop on Radiation in the Next Generation of Weather Forecast Models

21 – 24 May 2018

Programme

Monday 21 May		
13:30-14:00	<i>Registration and coffee</i>	Weather Room
14:00-14:05	Welcome	Andy Brown (ECMWF)
14:05-14:40	Challenges for radiation in NWP models	Robin Hogan (ECMWF)
Session 1	Optical and macrophysical properties of clouds and aerosols	Chair: Richard Forbes
14:40-15:15	Aerosols-cloud-radiation interactions	Jim Haywood (Met Office, University of Exeter)
15:15-15:45	<i>Coffee break</i>	Concourse
15:45-16:20	Cloud macrophysical properties	Maïke Ahlgrimm (ECMWF)
16:20-16:55	The quest for consistent ice optical properties across the spectrum	Anthony Baran (Met Office, University of Hertfordshire)
17:00-19:00	<i>Drinks reception and poster presentations</i>	Weather Room
Tuesday 22 May		
Session 2	Representing gas absorption	Chair: Marco Matricardi
09:15-09:50	Representing spectroscopy and the solar spectrum in atmospheric models	Eli Mlawer (AER)
09:50-10:25	Some issues in near-infrared radiative transfer	Keith Shine (University of Reading)
10:30-11:10	<i>Coffee break</i>	Concourse
11:10-11:45	Uncorrelated k-distribution models	Jürgen Fischer (FUB)
Session 3	Solvers and efficiency	Chair: James Manners (Met Office)
11:45-12:20	Several issues for current radiation algorithms in climate models	Jiangnan Li (ECCC)
12:20-12:55	3D radiation in cloud resolving models	Bernhard Mayer (LMU)
13:00-14:00	<i>Lunch break</i>	
14:00-14:35	Balancing efficiency, accuracy, and flexibility in a radiation code for dynamical models	Robert Pincus (University of Colorado)

Workshop programme - continued

14:35-15:10	Gauss-Legendre quadrature for computation of atmospheric radiative flux profiles	Howard Barker (ECCC)
15:15-15:45	<i>Coffee break</i>	Concourse
Session 4	Complex surfaces	Chair: Gianpaolo Balsamo (ECMWF)
15:45-16:20	Radiation and orography in weather models	Laura Rontu (FMI)
16:20-16:55	Why do we need improved vegetation-radiation interactions in earth system models?	Tristan Quaife (University of Reading)
16:55-17:30	Surface-radiation interactions in polar regions: challenges and future perspectives	Roberta Pirazzini (FMI)
Wednesday 23 May		
Session 5	Beyond the stratosphere	Chair: Robin Hogan
09:15-09:50	Radiative transfer for extra-solar planets: bringing it down to Earth	James Manners (Met Office)
09:50-10:25	Modelling non-LTE effects	Manuel López-Puertas (IAA)
10:30-11:10	<i>Coffee break</i>	Concourse
Session 6	Evaluation and data assimilation	Chair: Alessio Bozzo
11:10-11:45	Evaluation of IFS surface radiation from the ground and satellite	Thomas Haiden (ECMWF)
11:45-12:20	Evaluation of radiation schemes using aircraft observations	Manfred Wendisch (University Leipzig)
12:20-12:55	Infrared radiance modelling and assimilation	Marco Matricardi (ECMWF)
13:00-14:00	<i>Lunch break</i>	
14:00-14:35	Solar radiance modelling and assimilation	Leonhard Scheck (LMU)
Session 7	Working groups	
14:35-14:45	Description of working groups	Robin Hogan
14:45-17:30	Working groups	Mezzanine, LCR, MR1
15:30-16:00	<i>Coffee available</i>	Concourse
17:30-18:30	<i>Pre-dinner drinks</i>	Weather Room and Foyer
18:30	<i>Workshop dinner</i>	ECMWF Restaurant
Thursday 24 May		
09:15-10:30	Working groups	Mezzanine, LCR, MR1
10:30-11:00	<i>Coffee break</i>	Concourse
11:00-12:00	Working groups	Mezzanine, LCR, MR1
12:00-13:00	Plenary session	Lecture Theatre
13:00	<i>End of workshop</i>	
13:00-14:00	<i>Lunch break</i>	
14:00-16:00	HARMONIE radiation team (invitation only)	MR3 (booked for whole afternoon)