

*Proceedings of the*

**Second EPS/MetOp  
RAO Workshop**

20–22 May 2009  
Barcelona, Spain

*Organised by*  
**Eumetsat & ESA**

*Sponsored by*  
**Agencia Estatal de Meteorología (AEMet)**  
**Centre National d'Études Spatiales (CNES)**  
**Centro para el Desarrollo Tecnológico Industrial (CDTI)**

**European Space Agency**  
**Agence spatiale européenne**

<i>Publication</i>	Proc. 'Second EPS/MetOp RAO Workshop', Barcelona, Spain (ESA SP-675, September 2009)
<i>Edited by</i>	H. Lacoste
<i>Published and distributed by</i>	ESA Communication Production Office ESTEC, Noordwijk, The Netherlands
<i>Price</i>	€30
<i>ISBN</i>	978-92-9221-239-1
<i>ISSN</i>	1609-042X
<i>Copyright</i>	© 2009 European Space Agency

# CONTENTS

## Foreword

### Session 1: EPS/MetOp Mission Status and Other Missions

*Chair: A. Conesa*

The EPS/MetOp System

*M. Cohen & D. Klaes*

The Status of EPS/MetOp System Applications

*D. Klaes, R. Munro, P. Schlüssel et al.*

### Session 2: Meteorology, Hydrology and Land

*Chair: P. Ingmann*

First Comparison of Instability Indices, Total and Layer Precipitable Water from NWC SAF and IASI Retrievals

*M.A. Martinez*

Validation of Tropospheric Water Vapor as Measured by the 183-GHz Radiometer HAMSTRAD with IASI and Sondes over the Pyrenees Mountains, France

*P. Ricaud, O. Drasin, B. Gabard et al.*

A Split-Window Algorithm for Land Surface Temperature Retrieval from MetOp/AVHRR-3 Data

*J.C. Jiménez-Muñoz & J.A. Sobrino*

Soil Moisture Characterization of the *Valencia Anchor Station*.  
Ground, Aircraft Measurements and Simulations

*E. Lopez-Baeza, M.C. Antolin, J. Balling et al.*

Characterizations of ASCAT L2b and L2b 12.5 Wind Products

*A. Bentamy, D. Croize-Fillon & M.B. Ben Ticha*

ASCAT/MetOp Scatterometer Data: First Results for Sea Ice Study

*F. Girard-Ardhuin, R. Ezraty & D. Croizé-Fillon*

Contribution of MetOp ASCAT for Land Surface Parameters Monitoring over Sahel  
*S. Riazanoff, G. Faye, P.-L. Frison et al.*

ASCAT Scatterometer Calibration over the Ocean: Analysis of the 3-Dimensional Measurement Space  
*M. Portabella, A. Stoffelen, J. Verspeek & A. Verhoef*

Development of an ASCAT High Resolution Coastal Wind Product  
*M. Portabella, A. Stoffelen, A. Verhoef & J. Vogelzang*

### **Session 3: Climate and Atmospheric Chemistry**

*Chair: T. Phulpin*

The Potential of GRAS to Contribute to Climate Monitoring  
*U. Foelsche, B. Pirscher, M. Borsche et al.*

First Results on Atmospheric Composition Retrieval Using IASI-MetOp and AIRS-Aqua Data  
*F. Schreier, M. Szopa, A. Doicu et al.*

Monitoring of Atmospheric Composition Using the Thermal Infrared IASI Sounder  
*C. Clerbaux & the LATMOS IASI Team, P. Coheur & the ULB IASI Team*

Improvements in GOME-2 Retrievals of NO<sub>2</sub>  
*A. Richter, M. Begoin, A. Hilboll & J.P. Burrows*

Equatorial Total Column of Nitrous Oxide as Measured by IASI on MetOp-A: Implications for Transport Processes  
*P. Ricaud, J.-L. Attié, H. Teyssède et al.*

Fast Retrievals of O<sub>3</sub> Vertical Profiles from IASI Radiances: First Results and Validation  
*B. Barret, E. Leflochmoën, B. Sauvage et al.*

Tropospheric Ozone Measured with IASI  
*G. Dufour, M. Eremenko, C. Keim et al.*

### **Posters**

Comparisons of Methane Retrievals from IASI Radiance Spectra with Ground-Based FTIR Measurements in the Arctic and the Tropics  
*T. Kerzenmacher, N. Kumps, M. De Mazière et al.*

### **List of Participants**