



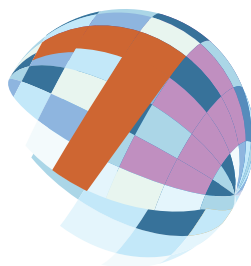
SERBIAN ACADEMY OF SCIENCES AND ARTS

NUMERICAL WEATHER AND CLIMATE MODELING

NOW, AND VISION OF THE FUTURE

PROGRAM

BELGRADE, SEPTEMBER 24–25, 2026



ORGANIZING COMMITTEE:

Fedor Mesinger

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Ana Vuković Vimić

Sin Chan Chou

Miodrag Rančić

Jürgen Steppeler

Numerical Weather and Climate Modeling: Now, and Vision of the Future

Belgrade, September 24, 2026

10:00–10:10 Opening addresses

10.10–10.40 **What cut-cell Eta features additional to its intersecting the topography are responsible for its successful performance?**

Fedor Mesinger, Jorge L Gomes , Dušan Jović ,
Katarina Veljović Koraćin

10.40–11.10 **Eta Model at all scales**

Sin Chan Chou, Jorge Luís Gomes, André A. Lyra,
Isabel D. Pilotto, Daniela Carneiro Rodrigues, Daniel Andrés
Rodriguez, Priscila da Silva Tavares, Gustavo Sueiro Medeiros,
Diego de Andrade Campos, Diego José Chagas, Fedor Mesinger

11.10-11.30 Coffee break

11.30–12.00 **Graph Machine-Learning Data Assimilation on a Global Icosahedral Grid: Accuracy, Physical Constraints, and Observation-Specific Control**

Miodrag Rančić

12.00-12.30 **Multigrid Graph Filter for Unstructured Finite-Volume Meshes**

Miodrag Rančić, R. James Purser, and Manuel S. F. V. De Pondecá

12.30–13.00 **AI-Driven Optimisation of an Adaptive Mesh Framework in the Fluidity–Atmosphere Model**

Jinxi Li, P. Gan, F. Fang, X. Wu, J. Zhu, Z. Wang, M. Zhu, X. Zou

13:00–14:00 Lunch break

14.00–14.30 Ensemble forecasting of radiational fog over northern France using a non-hydrostatic Eta model

Dragana Mujković, Katarina Veljović Koračin, Darko Koračin

14.30–15.00 Sparse L_Galerkin irregular meshes of high approximation order and their simple implementation in arbitrary existing models using the method of geometric files

Jürgen Steppeler

15.00–15.30 A Unified Solver for Global and Regional Atmospheric Simulations

Xindong Peng, Siyuan Chen, Xiaohan Li, Yifan Zhao, Jun Chang

15.30-16.00 Poster session and Coffee break

Diagnosis and Numerical Modeling of an Explosive Cyclone over the Northwestern Pacific

Sun Baitang, Li Pengyuan, Zhang Shuqin, Guo Jingtian,
and Fu Gang



Numerical Weather and Climate Modeling: Now, and Vision of the Future

Belgrade, September 25, 2026

10.00-10.30 SL-AV global atmosphere model: participation in WP-MIP project and further model development

Mikhail Tolstykh, Rostislav Fadeev, Vladimir Shashkin, Gordey Goyman, Radomir Zaripov, Ekaterina Biryucheva

10.30-10.50 Coffee break

10.50-11.20 Rainfall-Informed SWMM–LSTM Surrogate Modelling for Storm Sewer Network Flow Forecasting within a Digital Twin Framework

Haoyue Wang, Miloš Stanić, Jasmina Moskovljević, Čedo Maksimović

11.20-11.50 Coupling numerical precipitation forecasts with flood-oriented Local Digital Twins: The Kolubara-Tamnava case

Jelena Batica, Luka Stojadinović, Marija Milovanović, and Nikola Milivojević

11.50-12.50 Lunch break

12.50-13.20 Numerical Modeling Study of “Millipede Clouds”

Gang Fu, Zhongshi Wang, Xinyu Zhang, Weikang Sun, Pengyuan Li

13.20-13.50 Rain Gauge–Radar Merging Improves Short-Term Rainfall Nowcasts and the Sewer Overflow Forecasts

Surya Prayoga and Čedo Maksimović

13.50-14.20 Combining machine learning and physically based models in the forecasting of extreme weather events

Ivan Ristić, Ivana Kordić

