



SEVENTH SCIENTIFIC SEMINAR

Physics and Chemistry
of the Earth System

PARK HOTEL “KYUSTENDIL” | KYUSTENDIL
3 - 5 NOVEMBER, 2025

www.mg.phys.uni-sofia.bg

PROGRAM

MONDAY 3.11.2025

15:00

OPENING OF THE SEMINAR

with tea or coffee

15:30 - 15:50

Study of the relationship between urban microclimate, air pollution and human health in the city of Sofia

Stoyan Georgiev

15:50 - 16:10

Development of a new methodology for modelling air pollution in urban areas

Reneta Dimitrova

16:10 - 16:30

Measurements of black carbon concentration in Sofia's urban atmosphere

Elena Hristova



Session chair:

Denislav Bonchev

PROGRAM

MONDAY 3.11.2025

16:30 - 16:50

Contribution of bare soil surfaces to resuspended particulate matter and seasonal air quality patterns in urban environment

Danail Brezov

16:50 - 17:10

Latest technology and possibilities in satellite remote sensing

Zdravko Dimitrov

17:10 - 17:30

Weather riddles from Japan - quiz

Stanislava Tsalova

17:30 - 18:30

Discussion and Q&A



Session chair:
Denislav Bonchev

PROGRAM

TUESDAY 4.11.2025

9:00 - 9:20

SUMMIT research group "Climate,
weather and natural hazards and risks"
Guergana Guerova

9:20 - 9:40

Weather information and products online
(your source for forecasts and data:
www.weather.bg / www.meteo.bg)
Anastasiya Stoycheva

9:40 - 10:00

Comparing the 2011 derecho-like event in
Bulgaria with more recent derechos in
the north central United States
Jay Trobec

10:00 - 10:20

Variations of extreme weather events in
Bulgaria in the context of a changing
climate
Lilia Bocheva



Session chair:
Ilia Banov

PROGRAM

TUESDAY 4.11.2025

10:20-10:40

Foehn as an extreme weather event - an overview and research update

Desislava Stoyanova

10:40 - 11:10

Coffee Break

11:10 - 11:30

National seismological network and recent seismicity in North Macedonia

Jasmina Najdovska

11:30 - 11:50

Seismic scenario for the city of Sofia

Plamena Raykova-Tsankova

11:50 - 12:10

Research on the influence of the orientation of the seismograph on the elliptic (HVSR) curve

Yana Keskinova



Session chairs:

Ilia Banov

Vasilena Vacheva

PROGRAM

TUESDAY 4.11.2025

12:10 - 12:30

Glacier thickness estimation on Snow
Island, Antarctica

Gergana Georgieva

12:30 - 12:50

Giolechiza station: first analyses

Elitza Pandourska

12:50 - 13:30

Discussion and Q&A

13:30 - 14:30

Lunch Break

14:30 - 17:30

Panel Discussions:

1. Pollution with resuspended
particulate matter
2. Extreme weather events
3. Seismology and Earth exploration



Session chair:
Vasilena Vacheva

PROGRAM

WEDNESDAY 5.11.2025

9:00-9:20

News from Black Sea oceanography

Emil Stanev

9:20 - 9:40

Implementation of an operational oil spill forecasting system for the Black Sea region

Lilia Nikolova

9:40 - 10:00

MASRI – Infrastructure for sustainable development of marine research

Elisaveta Peneva

10:00 - 10:20

Frequency of extratropical and quasi-tropical cyclones in the Black Sea

Mainara Gouveia

10:20 - 10:40

Scale analysis of the Stoyanov bunches and beyond

Vesselin Tonchev



Session chair:

Elitza Pandourska

PROGRAM

WEDNESDAY 5.11.2025

10:40-11:30

Discussion and Q&A

12:30-13:30

Lunch Break

13:30

CLOSING OF THE SEMINAR



Session chair:
Elitza Pandourska