

## NP – Nonlinear Processes in Geosciences (#EGU18NP) – Orals

### Monday, 09 April

<b>MO1</b> , 08:30–10:00	<b>NP4.1/CL5.29/NH11.20</b> , Time Series Analysis in the Geosciences - Concepts, Methods and Applications (co-organized), <b>08:30–10:00, Room M2</b>
	<b>NP7.2/OS5.4</b> , Nonlinear and turbulent processes under high wind conditions. New and old physics, remote sensing (co-organized), <b>08:30–10:00, Room L2</b>
	<b>GI0.2/AS4.23/BG1.27/CL5.15/EMRP4.36/ERE1.8/G6.2/GD1.2/GM12.5/GMPV10.10/HS11.1/NH9.24/NP9.2/SM1.1/SSP1.3/SSS13.70/TS1.8</b> , COST Actions in Geosciences: breakthrough ideas, research activities and results (co-organized), <b>08:30–11:45, Room 0.49</b>
<b>MO2</b> , 10:30–12:00	<b>NP6.1/AS2.5</b> , Turbulence in the Atmosphere and Ocean (co-organized), <b>10:30–15:00, Room M2</b>
	<b>IE4.1/NP4.3/AS5.13/CL5.18/ESSI2.3/GD10.6/HS3.7/NH11.14/SM7.03</b> , Big data and machine learning in geosciences (co-organized), <b>10:30–17:00, Room N2</b>
	<b>GI0.2/AS4.23/BG1.27/CL5.15/EMRP4.36/ERE1.8/G6.2/GD1.2/GM12.5/GMPV10.10/HS11.1/NH9.24/NP9.2/SM1.1/SSP1.3/SSS13.70/TS1.8</b> , COST Actions in Geosciences: breakthrough ideas, research activities and results (co-organized), <b>08:30–11:45, Room 0.49</b>
	<b>GDB2</b> , Hands on or hands off?, <b>10:30–12:00, Room E1</b>
<b>MOL</b> , 12:15–13:15	<b>PCN2</b> , EGU Plenary, <b>12:15–13:15, Room E1</b>
<b>MO3</b> , 13:30–15:00	<b>NP6.1/AS2.5</b> , Turbulence in the Atmosphere and Ocean (co-organized), <b>10:30–15:00, Room M2</b>
	<b>IE4.1/NP4.3/AS5.13/CL5.18/ESSI2.3/GD10.6/HS3.7/NH11.14/SM7.03</b> , Big data and machine learning in geosciences (co-organized), <b>10:30–17:00, Room N2</b>
	<b>US2</b> , The future of Earth and Planetary Observations from Space, <b>13:30–17:00, Room E1</b>
<b>MO4</b> , 15:30–17:00	<b>NP2.2/AS1.9/CL2.11</b> , Dynamical Extremes in Climate Sciences (co-organized), <b>15:30–17:00, Room M2</b>
	<b>IE4.1/NP4.3/AS5.13/CL5.18/ESSI2.3/GD10.6/HS3.7/NH11.14/SM7.03</b> , Big data and machine learning in geosciences (co-organized), <b>10:30–17:00, Room N2</b>
	<b>US2</b> , The future of Earth and Planetary Observations from Space, <b>13:30–17:00, Room E1</b>
<b>MO6</b> , 19:00–20:00	<b>SC1.24/CL6.01/NP8.1</b> , Simple applications of dynamical systems theory to real-world climate data (co-organized), <b>19:00–20:00, Room -2.31</b>

### Tuesday, 10 April

<b>TU1</b> , 08:30–10:00	<b>NP2.1/AS1.25/CL2.10/OS1.13</b> , ENSO: Dynamics, Predictability and Modelling (co-organized), <b>08:30–12:00, Room L2</b>
<b>TU1b</b> , 09:00–10:00	<b>US1</b> , Past achievements and future challenges for the Geosciences (co-sponsored by AGU), <b>09:00–12:00, Room E1</b>
<b>TU2</b> , 10:30–12:00	<b>NP2.1/AS1.25/CL2.10/OS1.13</b> , ENSO: Dynamics, Predictability and Modelling (co-organized), <b>08:30–12:00, Room L2</b>
	<b>US1</b> , Past achievements and future challenges for the Geosciences (co-sponsored by AGU), <b>09:00–12:00, Room E1</b>
<b>TU3</b> , 13:30–15:00	<b>NP6.2</b> , Recent developments in Geophysical Fluid Dynamics: Waves, Turbulence, Transport and Intermittency, <b>13:30–15:00, Room M1</b>

	<b>NP7.1</b> , Unusual waves in geophysics, <b>13:30–15:00, Room M2</b>
	<b>CL3.04/NP5.6</b> , Climate Predictions from monthly, seasonal to decadal time scales (co-organized), <b>13:30–15:00, Room 0.14</b>
	<b>GDB4</b> , Low-risk geo-engineering: are techniques available now?, <b>13:30–15:00, Room E1</b>
<b>TU4</b> , 15:30–17:00	<b>NP7.3/NH5.8/OS2.13</b> , Wave-current interactions (co-organized), <b>15:30–17:00, Room M2</b>
	<b>SC1.33/NP8.5</b> , Data assimilation in the geosciences - An Overview (co-organized), <b>15:30–17:00, Room -2.85</b>
<b>TU6</b> , 19:00–20:00	<b>SC1.27/NP8.3</b> , Geophysical time series analysis (co-organized), <b>19:00–20:00, Room -2.91</b>
<b>TU6a</b> , 19:00–20:30	<b>GDB3</b> , The Early Career Scientists' Great Debate: Should early career scientists use time developing transferrable skills?, <b>19:00–20:30, Room E1</b>
<b>Wednesday, 11 April</b>	
<b>WE1</b> , 08:30–10:00	<b>NP5.1</b> , Inverse Problems, Data Assimilation and Predictability Studies in Geophysics, <b>08:30–12:00, Room L2</b>
	<b>US4</b> , Fifty years of International Ocean Drilling, <b>08:30–12:00, Room E1</b>
<b>WE2</b> , 10:30–12:00	<b>NP5.1</b> , Inverse Problems, Data Assimilation and Predictability Studies in Geophysics, <b>08:30–12:00, Room L2</b>
	<b>CL3.03/AS4.12/BG4.13/HS11.8/NH11.15/NP5.5/SSS13.13</b> , Earth System Prediction and Application (co-organized), <b>10:30–12:00, Room 0.94</b>
	<b>US4</b> , Fifty years of International Ocean Drilling, <b>08:30–12:00, Room E1</b>
<b>WEL</b> , 12:15–13:15	<b>DM15/NP</b> , Division meeting for Nonlinear Processes in Geosciences (NP) (co-organized), <b>12:15–13:15, Room M2</b>
<b>WE3</b> , 13:30–15:00	<b>NP5.3/AS1.5/HS4.8</b> , Advances in statistical post-processing for deterministic and ensemble forecasts (co-organized), <b>13:30–15:00, Room 0.49</b>
	<b>HS7.1/AS1.18/NP3.3</b> , Precipitation measurement: techniques, processes and hydrological applications at the catchment scale (co-organized), <b>13:30–17:00, Room B</b>
<b>WE4</b> , 15:30–17:00	<b>NP3.1</b> , Scaling, multifractals and Nonlinear dynamics in the atmosphere, ocean and environment, <b>15:30–17:00, Room L3</b>
	<b>HS7.1/AS1.18/NP3.3</b> , Precipitation measurement: techniques, processes and hydrological applications at the catchment scale (co-organized), <b>13:30–17:00, Room B</b>
	<b>SC1.32/NP8.2</b> , Response, variability and transitions in geophysical systems (co-organized), <b>15:30–17:00, Room -2.31</b>
<b>WE5</b> , 17:30–19:00	<b>PCN3</b> , EGU Award Ceremony, <b>17:30–20:00, Room E1</b>
<b>WE6</b> , 19:00–20:00	<b>PCN3</b> , EGU Award Ceremony, <b>17:30–20:00, Room E1</b>
<b>Thursday, 12 April</b>	
<b>TH1</b> , 08:30–10:00	<b>NP1.1/CL4.03</b> , Mathematics of Planet Earth (including Lewis Fry Richardson Medal Lecture and NP Division Outstanding ECS Lecture) (co-organized), <b>08:30–17:00, Room L3</b>
	<b>IE2.1/NP3.4/AS1.8/CL2.08/CR1.9/OS1.20/ST4.7</b> , Climate Variability Across Scales and Climate States (co-organized), <b>08:30–12:00, Room N2</b>
	<b>HS7.2/AS1.17/CL2.06/NH1.17/NP5.4</b> , Precipitation Modelling: uncertainty, variability, assimilation, ensemble simulation and downscaling (co-organized), <b>08:30–15:00, Room B</b>

	<b>US3</b> , Cassini and future perspectives for the exploration of the outer solar system, <b>08:30–12:00, Room E1</b>
<b>TH2</b> , 10:30–12:00	<b>NP1.1/CL4.03</b> , Mathematics of Planet Earth (including Lewis Fry Richardson Medal Lecture and NP Division Outstanding ECS Lecture) (co-organized), <b>08:30–17:00, Room L3</b>
	<b>IE2.1/NP3.4/AS1.8/CL2.08/CR1.9/OS1.20/ST4.7</b> , Climate Variability Across Scales and Climate States (co-organized), <b>08:30–12:00, Room N2</b>
	<b>HS7.2/AS1.17/CL2.06/NH1.17/NP5.4</b> , Precipitation Modelling: uncertainty, variability, assimilation, ensemble simulation and downscaling (co-organized), <b>08:30–15:00, Room B</b>
	<b>US3</b> , Cassini and future perspectives for the exploration of the outer solar system, <b>08:30–12:00, Room E1</b>
<b>TH3</b> , 13:30–15:00	<b>NP1.1/CL4.03</b> , Mathematics of Planet Earth (including Lewis Fry Richardson Medal Lecture and NP Division Outstanding ECS Lecture) (co-organized), <b>08:30–17:00, Room E2</b>
	<b>IE2.8/CL4.02/AS1.7/BG1.40/NP2.6/OS1.22</b> , Constraining climate sensitivity from various lines of evidence (co-organized), <b>13:30–15:00, Room N2</b>
	<b>ML43/NP</b> , NP Division Outstanding ECS Lecture by Davide Faranda (co-organized), <b>13:30–13:45, Room E2</b>
	<b>HS7.2/AS1.17/CL2.06/NH1.17/NP5.4</b> , Precipitation Modelling: uncertainty, variability, assimilation, ensemble simulation and downscaling (co-organized), <b>08:30–15:00, Room B</b>
	<b>GDB5</b> , Natural versus anthropogenic threats for life on Earth, <b>13:30–15:00, Room E1</b>
<b>TH4</b> , 15:30–17:00	<b>NP1.1/CL4.03</b> , Mathematics of Planet Earth (including Lewis Fry Richardson Medal Lecture and NP Division Outstanding ECS Lecture) (co-organized), <b>08:30–17:00, Room E2</b>
	<b>ML20/NP</b> , Lewis Fry Richardson Medal Lecture by Timothy N. Palmer (co-organized), <b>16:00–17:00, Room E2</b>
<b>Friday, 13 April</b>	
<b>FR1</b> , 08:30–10:00	<b>NP2.4</b> , New model and data-based approaches to study climate behavior, <b>08:30–12:00, Room M1</b>
	<b>US5</b> , Scientific research in a changing European Union: where we stand and what we aim for?, <b>08:30–10:00, Room E1</b>
<b>FR2</b> , 10:30–12:00	<b>NP2.4</b> , New model and data-based approaches to study climate behavior, <b>08:30–12:00, Room M1</b>
	<b>SC1.25/CL6.07/NP8.4</b> , Scales and scaling in the climate system (co-organized), <b>10:30–12:00, Room -2.31</b>
<b>FR3</b> , 13:30–15:00	<b>NH5.6/NP7.4/OS5.5</b> , Extreme Internal Wave Events: Generation, Transformation, Breaking and Interaction with the Bottom Topography (co-organized), <b>13:30–15:00, Room L4/5</b>
<b>FR4</b> , 15:30–17:00	<b>NP6.6/AS4.17/ST1.11</b> , Turbulence, magnetic reconnection, shocks and particle acceleration: nonlinear processes in space, laboratory and astrophysical plasmas (co-organized), <b>15:30–17:00, Room L7</b>

## NP – Nonlinear Processes in Geosciences (#EGU18NP) – PICO

### Monday, 09 April

<b>MO3</b> , 13:30–15:00	<b>CL5.02/AS5.7/BG1.38/GD10.9/GI0.5/GM2.10/GMPV10.9/HS11.25/NH11.1/NP9.4/OS4.14/PS6.4/SM7.04/SSP1.12/SSS13.12/ST4.8/TS11.9</b> , The development of geoscientific modelling (co-organized), <b>PICO spot 5a</b>
<b>MO4</b> , 15:30–17:00	<b>CL5.02/AS5.7/BG1.38/GD10.9/GI0.5/GM2.10/GMPV10.9/HS11.25/NH11.1/NP9.4/OS4.14/PS6.4/SM7.04/SSP1.12/SSS13.12/ST4.8/TS11.9</b> , The development of geoscientific modelling (co-organized), <b>PICO spot 5a</b>

### Wednesday, 11 April

<b>WE1</b> , 08:30–10:00	<b>HS7.3/CL2.19/ERE2.5/NH1.16/NP9.1</b> , Water, climate, food and health (co-organized), <b>PICO spot 5b</b>
<b>WE2</b> , 10:30–12:00	<b>HS7.3/CL2.19/ERE2.5/NH1.16/NP9.1</b> , Water, climate, food and health (co-organized), <b>PICO spot 5b</b>

### Thursday, 12 April

<b>TH4</b> , 15:30–17:00	<b>IE1.1/BG1.15/NH8.7/NP9.3</b> , Climate extremes, biosphere and society: impacts, remote sensing, and feedbacks (co-organized), <b>PICO spot 4</b>
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## NP – Nonlinear Processes in Geosciences (#EGU18NP) – Posters

### Monday, 09 April

MO5, 17:30–19:00	NP2.2/AS1.9/CL2.11, Dynamical Extremes in Climate Sciences (co-organized), Hall X3, X3.1–X3.27
	NP4.1/CL5.29/NH11.20, Time Series Analysis in the Geosciences - Concepts, Methods and Applications (co-organized), Hall X3, X3.28–X3.43
	NP6.1/AS2.5, Turbulence in the Atmosphere and Ocean (co-organized), Hall X3, X3.76–X3.113
	NP7.2/OS5.4, Nonlinear and turbulent processes under high wind conditions. New and old physics, remote sensing (co-organized), Hall X3, X3.114–X3.135
	IE4.1/NP4.3/AS5.13/CL5.18/ESSI2.3/GD10.6/HS3.7/NH11.14/SM7.03, Big data and machine learning in geosciences (co-organized), Hall X3, X3.44–X3.75
	GI0.2/AS4.23/BG1.27/CL5.15/EMRP4.36/ERE1.8/G6.2/GD1.2/GM12.5/GMPV10.10/HS11.1/NH9.24/NP9.2/SM1.11/SSP1.3/SSS13.70/TS1.8, COST Actions in Geosciences: breakthrough ideas, research activities and results (co-organized), Hall X1, X1.1–X1.28

### Tuesday, 10 April

TU5, 17:30–19:00	NP2.1/AS1.25/CL2.10/OS1.13, ENSO: Dynamics, Predictability and Modelling (co-organized), Hall X4, X4.319–X4.339
	NP6.2, Recent developments in Geophysical Fluid Dynamics: Waves, Turbulence, Transport and Intermittency, Hall X4, X4.340–X4.354
	NP7.1, Unusual waves in geophysics, Hall X4, X4.355–X4.367
	NP7.3/NH5.8/OS2.13, Wave-current interactions (co-organized), Hall X4, X4.368–X4.381
	CL3.04/NP5.6, Climate Predictions from monthly, seasonal to decadal time scales (co-organized), Hall X5, X5.389–X5.410

### Wednesday, 11 April

WE5, 17:30–19:00	NP5.1, Inverse Problems, Data Assimilation and Predictability Studies in Geophysics, Hall X4, X4.332–X4.368
	NP5.3/AS1.5/HS4.8, Advances in statistical post-processing for deterministic and ensemble forecasts (co-organized), Hall X4, X4.369–X4.388
	CL3.03/AS4.12/BG4.13/HS11.8/NH11.15/NP5.5/SSS13.13, Earth System Prediction and Application (co-organized), Hall X5, X5.302–X5.316

### Thursday, 12 April

TH5, 17:30–19:00	NP1.1/CL4.03, Mathematics of Planet Earth (including Lewis Fry Richardson Medal Lecture and NP Division Outstanding ECS Lecture) (co-organized), Hall X4, X4.297–X4.332
	NP3.1, Scaling, multifractals and Nonlinear dynamics in the atmosphere, ocean and environment, Hall X4, X4.333–X4.348
	IE2.8/CL4.02/AS1.7/BG1.40/NP2.6/OS1.22, Constraining climate sensitivity from various lines of evidence (co-organized), Hall X5, X5.373–X5.395
	IE2.1/NP3.4/AS1.8/CL2.08/CR1.9/OS1.20/ST4.7, Climate Variability Across Scales and Climate States (co-organized), Hall X4, X4.349–X4.372

**HS7.1/AS1.18/NP3.3**, Precipitation measurement: techniques, processes and hydrological applications at the catchment scale (co-organized), **Hall A, A.194–A.227**

## Friday, 13 April

**FR3**, 13:30–15:00

**NP2.4**, New model and data-based approaches to study climate behavior, **Hall X4, X4.260–X4.285**

**HS7.2/AS1.17/CL2.06/NH1.17/NP5.4**, Precipitation Modelling: uncertainty, variability, assimilation, ensemble simulation and downscaling (co-organized), **Hall A, A.89–A.129**

**FR5**, 17:30–19:00

**NP6.6/AS4.17/ST1.11**, Turbulence, magnetic reconnection, shocks and particle acceleration: nonlinear processes in space, laboratory and astrophysical plasmas (co-organized), **Hall X4, X4.286–X4.295**

**NH5.6/NP7.4/OS5.5**, Extreme Internal Wave Events: Generation, Transformation, Breaking and Interaction with the Bottom Topography (co-organized), **Hall X1, X1.165–X1.177**