



SPARC Training School on “Climate Data Analysis and Artificial Intelligence in the Global South”.

29th-31st October 2023

University of Rwanda - College of Science and Technology, Kigali, Rwanda.

Position on Google Map: [Here](#)

1. Programme.

Day 1: 29 October 2023 (Dr. Mohamadou A. Diallo & Dr Celestin Kurujyibwami)

Time	Description	Speakers
09:00 - 09:10	General opening of the workshop Purpose, prospective outcomes of workshop & schedule	Dr. Moha Diallo
09:00 - 09:15	Intro to WCRP, SPARC, and FZJ	Prof. Michaela I. Hegglin
09:00 - 09:30	Ted's Life story in WCRP	Prof. Ted Shepherd
09:30 - 10:15	Overview Climate Modeling and Change in the IPCC AR6: Regional Climate Change Information for Africa from Satellite Observation and Climate Models	Dr. Mouhamadou B. Sylla
10:15 - 10:45	Short tea and coffee break	
10:45 - 12:15	Hands-on Python on jupyter-notebook with a case study	Dr. Emmanuel Masabo
12:00 - 13:30	Lunch break	
13:30 - 14:00	Introduction to Earth System Model Evaluation Tool	Dr. Birgit Hassler
14:00 - 16h00	Hands-on Python ESMValTool for Climate Model Visualization	Dr. Birgit Hassler
16:00 - 16:30	Short tea and coffee break	
16:30 - 17:00	Overview lecture on Reanalysis products - SRIP	Prof. Gloria L. Manney
18:00-onward	Dinner	

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Day 2: 30 October 2023 (Dr. Elena Saggioro & Dr. Mohamadou A. Diallo)

Time	Description	Speakers
09:00 - 09:45	African Monsoon Circulation: Processes and impacts on society	Dr. Cheikh N. Fall
09:45 - 10:00	Self introduction of the Trainees	Trainees
10:00 - 10:30	Short tea and coffee break	
10:30 - 10:45	Self introduction of the Trainees	Trainees
10:45 - 11:30	Causal Inference in Climate and Weather Research	Dr. Elena Saggioro
11:30 - 11:35	Representative of the Principal of the University of Rwanda-CST	Dr Gatare
11:35 - 13:00	Lunch break	
13:00 - 14:45	Hands-on Python MLRs	Dr. Mohamadou A. Diallo
14:45 - 15:15	Short tea and coffee break	
15:15 - 17:00	Hands-on Python Causal Inference	Dr. Elena Saggioro
18:00-onward	Dinner	

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Day 3: 31 October 2023 (Dr. Elena Saggioro & Dr. Mohamadou A. Diallo)

Time	Description	Speakers
09:00 - 09:30	Demystifying AI for Climate and Weather Research	Ms Fiona Spuler
09:30 - 10:00	Artificial Neural Network: from zero-to-hero	Dr. Mohamadou A. Diallo
10:00 - 10:30	Short tea and coffee break	
10:30 - 11:00	Variational Autoencoders and Clustering Methods	Ms Fiona Spuler
11:00 - 11:30	Advance AI methods: Deep learning and Transformers	Mr Jakob Wessel
11:00 - 12:30	Lunch break	
12:30 - 14:15	Hands-on Python Dimensionality Reduction and Clustering Methods	Ms Fiona Spuller Mr Jakob Wessel
14:15 - 16:15	Hands-on Python Artificial NN kitchen and Deep Learning	Dr. Mohamadou A. Diallo
16:15 - 16:45	Closing the Training School	
16:45 - 17:00	Short tea and coffee break	
18:00-onward	Dinner	