

Eddy Covariance Flux Measurements Winter School 2019

Monday 10th June

Time	Session	Session leader
9:00	Introduction & Official opening by the course hosting University partners	Natasha Potgieter, Dean Eric Maluta, Course Host University of Venda
9:30	Introduction to the content & aims of the course	Christian Brümmer, Thünen-AK
9:45	Introduction round: 2-minute power point presentations by teachers and course participants	Mari Bieri, Thünen-AK
11:00	TEA BREAK & NETWORKING	
11:45	General overview of the current status of environmental observation in Africa – the SEACRIFOG project	Johannes Beck, SASSCAL
12:15	Which variables do we need to measure to improve global and African GHG budgets and estimate climate forcing components ?	Johannes Beck
12:45	LUNCH BREAK	
14:00	Current data availability : monitoring networks & their spatial representativeness	Johannes Beck
14:45	Introduction to EFTEON: The Expanded Freshwater and Terrestrial Environmental Observation Network	Gregor Feig, SAEON/EFTEON
15:30	TEA BREAK & NETWORKING	
16:00-17:00	Methodologies to measure GHG emissions in the terrestrial domain (<i>other than Eddy Covariance</i>)	Ana López-Ballesteros, TCD

Tuesday 11th June

Time	Session	Session leader
9:00	Fundamentals of atmospheric monitoring : site considerations and instrumentation	Alecia Nickless
10:00	Inverse modelling: Introduction to atmospheric inversions with examples of applications in Africa	Alecia Nickless
11:00	TEA BREAK & NETWORKING	
11:45	Eddy covariance - introduction	Christian Brümmer
12:45	LUNCH BREAK	
14:00	Eddy covariance - instruments session	Christian Brümmer, Jean-Pierre Delorme, Jens Jüdt (Thünen-AK), Humbelani Thenga, Amukelani Maluleke (CSIR)
16:00	TEA BREAK	
16:30-17:15	Talk title TBA	Tony Palmer (ARC)

Wednesday 12th June

Time	Session	Session leader
9:00-10:30	Parallel sessions: the group will be divided into two parts, and each will attend both of the hands-on sessions (1 and 2) "Hands-on" session 1: Setup and running of an Eddy Covariance system	Christian Brümmer, Jean-Pierre Delorme, Jens Jüdt, Humbelani Thenga, Amukelani Maluleke
9:00-10:30	"Hands-on" session 2: Setting up an Automatic Weather Station (AWS)	Gregor Feig
10:30	TEA BREAK & NETWORKING	
11:15-12:45	"Hands-on" session 1: Setup and running of an Eddy Covariance system	Christian Brümmer, Jean-Pierre Delorme, Jens Jüdt, Humbelani Thenga, Amukelani Maluleke
11:15- 12:45	"Hands-on" session 2: Setting up an Automatic Weather Station (AWS)	Gregor Feig
12:45	LUNCH BREAK	
14:00	Introduction: Working with cleaned flux data on model evaluation	Mohau Mateyisi (CSIR)
14:30	Hands-on session with R: Working with cleaned flux data on model evaluation (participants need laptops with R installed)	Mohau Mateyisi
15:30	TEA BREAK & NETWORKING	
16:00-17:30	Hands-on session with R: Working with cleaned flux data on model evaluation	Mohau Mateyisi

Thursday 13th June

Time	Session	Session leader
9:00	EC project at the cherry plantations at the Eastern Free State (exact title TBA)	Phumudzo Tharaga (University of the Free State)
10:45	TEA BREAK & NETWORKING	
11:30	Skukuza site as an example of research questions conducted at long term flux measurement sites in Africa	Gregor Feig
12:45	LUNCH BREAK	
14:00-15:30	Parallel sessions 1 and 2 – group divided into two Hands-on session 1: Soil chamber measurements (with theory introduction)	Ana López-Ballesteros
14:00-15:30	Hands-on session 2: From raw data to processed quality assured fluxes	Christian Brümmer
15:30	TEA BREAK & NETWORKING	
16:15-17:45	Hands-on session 1: Soil chamber measurements (with theory introduction)	Ana López-Ballesteros
16:15-17:45	Hands-on session 2: From raw data to processed quality assured fluxes	Christian Brümmer

Friday 14th June

Time	Session	Session leader
9:00	Using flux data in national terrestrial carbon accounting	Graham Von Maltitz (CSIR)
10:00	TBA	
11:00	TEA BREAK	
11:30	Personalized support sessions (or TBA)	
12:45	LUNCH BREAK	
14:00	Final session: wrap-up, closing & course feedback	Christian Brümmer & Gregor Feig
15:00-18:00	Final celebration, dinner & course certificates	