

Workshop program

Day 1

Tuesday 9 th of November			
Session	Time	Title	By / Remark
Intro	09:00 – 09:15	Welcome to KIT	Clemens Scheer
	09:15 – 09:45	Introduction and overview of the DASIM Project	Christoph Müller
Session I A	Anaerobic soil processes: experimental approaches and available data		
12 min presentations and 3 min discussions	9:45 – 10:00	Estimating the anaerobic volume from oxic /anoxic incubations experiments	Reinhard Well, Amanda Matson, Balazs Grosz
	10:00 – 10:15	Estimating the anaerobic volume from micro-scale distribution of air and water	Steffen Schlüter
	10:15 – 10:30	Effects of soil-gas diffusivity on soil O ₂ and denitrification dynamics.	Tim Clough
	10:30– 11:00	Coffee break	
	11:00 – 11:15	3 D modelling of diffusivity and gaseous fluxes in soil	Martin Maier
	11:15 – 11: 30	Parameter sensitivity analysis of modeling carbon and nitrogen processes in an incubation experiment using CoupModel	Jie Zhang
	11: 30 – 11:45	Nitrogen turnover in heterogeneous landscapes - The MINCA dataset	Elizabeth Wangari
	11:45 – 12:00	Exploring the effect of soil heterogeneity on denitrification: A virtual experiment	Efstathios Diamantopoulos
	12:00 – 12:30	General Discussion	Moderator: Clemens Scheer
	12:30 – 13:30	Lunch	
Session I B	Existing and new approaches for modelling anaerobic soil processes (O ₂ profiles, anaerobic volume fraction, denitrification) modelling		
12 min presentations and 3 min discussions	13:30 – 13:45	High-resolution modelling approach in the DASIM-project	Jan Zawallich/ Olaf Ippisch
	13:45 – 14:00	Near Realtime GHG emission modelling – why it matters and how this could improve denitrification simulations?	Jagadeesh Yeluripati
	14:00 – 14:15	Simultaneous numerical representation of anaerobic processes in soil microsites using probability distribution functions.	Debjani Sihi / Eric A. Davidson
	14:15 – 14:30	Modelling denitrification with DayCent: effect of soil O ₂ dynamics and the anaerobic volume	Steve del Grosso
	14:30 – 14:45	Bayesian Calibration of Process-Based Models for Predicting Soil N ₂ O Emissions	Stephen Ogle
	14:45 – 15:00	General Discussion	Moderator: Balazs Grosz
	15:00 – 15:30	Coffee break	
Session II	Evaluating the existing av models. What are the main challenges		

	15:30 – 15:45	DASIM WFPS incubations experiments - estimating the anaerobic volume for the modelling exercise	Amanda Matson, Reinhard Well, Balazs Grosz
	15:45 – 16:00	Results from modelling exercise	Balazs Grosz/ David Kraus/ Rene Dechow/ Matthias Kuhnert/ Hongxing He
General discussion	16:00 – 16:15		Moderator: Balazs Grosz
Session III	Way forward for model calibration and development. What could the DASIM provide and what is still missing?		
General discussion	16:15 – 17:00	What kind of data is still missing?	Moderator: Amanda Matson
	Day's summary		
<i>Social dinner</i>	<i>From 19:00</i>	<i>Dinner at restaurant</i>	

Day 2

Wednesday 10 th of November			
Session	Time	Title	By / Remark
Intro	09:00 – 09:20	Summary of previous day	Clemens Scheer Balazs Grosz
Session IV Group discussion	What are main challenges for modelling anaerobic soil processes? Which process representation needs to be improved in the model and how can we do this? What is the best way forward?		
Discussion	09:20 – 10:30	Discussion round in two groups (online and in-person)	Moderator (in-person): David Kraus Moderator (online): Jagadeesh Yeluripati
Session V			
Presentation of results	10:30 – 11:00	Results from group discussion	David Kraus Jagadeesh Yeluripati
	11:00 – 11:30	Coffee break	
Session VI	Workshop's summary		
General discussion	11:30 – 12:30	Concluding discussion	Moderator: Clemens Scheer Balazs Grosz
		Publications of the results of this workshop (Special issue, Opinion Paper?)	
		Wrap up and outlook	
Lunch	12:30 – 13:30	Lunch	