

Tuesday

September 1, 2009

17:00	19:00	BOKU, Muthgasse 18 (Venue place), Ground floor	Registration
			Welcome Reception and Ice-breaker

Wednesday

September 2, 2009

8:00	10:00	BOKU (Venue place), Ground floor		Registration								
8:50	9:20	Room No 20		Opening ceremony Moderation: Willibald Loiskandl, Chair of the Organising Comittee Welcome address by Martin Gerzabek, BOKU Interim rector								
	Key speech by Hans Persson, President of ISRR: The study of plant roots - insight into a hidden world											
9:20	9:50											
9:50	10:10	Coffee break										
Symposium Topic		1: Root growth, anatomy and morphology					5: Climate change and environmental stresses					
Plenary Sessions <i>Morning</i>		Room No 20		Chair: Peter Gregory			Room No 21		Chair: Roger Finlay			
		Presenting Author		Title			Presenting Author		Title			
10:10	10:40	key note:	Barlow	Peter	Inquisitive, problem-solving roots and the new 'Neurobiology' of plants			key note:	Godbold	Douglas	Climate change and belowground processes in forests	
10:40	11:00		Saleeba	Jennifer A.	Genetics of root architecture				Pilon	Rémi	Impacts of climate change on root demography and soil respiration of a perennial grassland	
11:00	11:20		Metselaar	Klaas	Rooting profiles with deph ^t - the case of the "Wurzelatlas mitteleuropäischer Ackerunkräuter und Kulturpflanzen"				King	Claire	Root adaptations of Mediterranean species to hypoxia and anox	
11:20	11:40		Sobotik	Monika	The importance of anatomical structure of roots for physiological processes				Rewald	Boris	Drought-induced plasticity of root specific conductivity and vulnerability to cavitation	
11:40	12:00		Zanetti	Caroline	Tree root systems architecture in earth dike				Repo	Tapani	Does the removal of the snow layer enhance the adverse effects of soil frost on <i>Picea abies</i> (L.) Karst.?	
12:00	13:30	Lunch										
Symposium Topic		1: Root growth, anatomy and morphology					5: Climate change and environmental stresses					
Plenary Sessions <i>Afternoon</i>		Room No 20		Chairs: Gerhard Karrer (<i>before</i>) and Shigenori Morita (<i>after break</i>)				Room No 21		Chairs: Douglas Godbold (<i>before</i>) and Andreas Böhner (<i>after break</i>)		
		Presenting Author		Title			Presenting Author		Title			
13:30	13:50		Chiatante	Donato	Initiation of vascular cambium derivatives produces new branch roots in a woody parental axis: Effect on root architecture				Bengough	Anthony Glyn	Physical limitations to root growth: Screening, scaling and reality	
13:50	14:10		Hirano	Yasuhiro	Variation in fine root traits by branch order within a <i>Chamaecyparis obtusa</i> stand				Valentine	Tracy	Root responses to soil physical constraints: Quantitative gene expression analysis	
14:10	14:30		Chopart	Jean-Louis	Spatial 2D distribution and depth of Sugarcane root system in a deep soil				Shiono	Katsuhiro	Transcriptional profiling of root hypodermal tissues during formation of a barrier to radial O ₂ loss in rice (<i>Oryza sativa</i> L.)	
14:30	14:50		Sumner	Malcolm E.	Gypsum improves subsoil root growth				Oberhuber	Walter	Interactions between root and stem growth in <i>Pinus sylvestris</i> exposed to drought - assumptions based on tree ring analysis	
14:50	16:00	Coffee break and Poster Session I: Topic 1 and Topic 5, 10min Introduction, Chair: Robert Jandl										
16:00	16:20		Picon-Cochard	Catherine	Plasticity of grass root functional traits and root mass in response to cutting frequency and N fertilization				Nakazono	Mikio	Identification of genes expressed during aerenchyma formation in maize roots using laser microdissection and microarray	
16:20	16:40		Zobel	Richard	Report of the Root Nomenclature workgroup of the 5 th ISRR Symposium, reprise				Bandiera	Marianna	Effectiveness of roots in preventing metal leaching in EDDS-assisted phytoextractions with <i>Brassica carinata</i> L. and <i>Paphanus sativus</i> L. var. Oleiformis	
16:40	17:00		Andreasson	Frida	Fine root morphology of <i>Pinus pinaster</i> as affected by site fertility				Konôpka	Bohdan	Seasonal dynamics of <i>Picea abies</i> and <i>Fagus sylvatica</i> fine roots in an acidified cambisol	
17:00	17:20		Wojciechowski	Tobias	Root architecture of wheat and barley is affected by expression of reduced height genes							
18:00	20:00	Room No 22		Business Meeting of ISRR								

September 3, 2009

Symposium Topic		3: Rhizosphere and soil organisms				4: Allocation and partitioning in roots, contributions to soil C sequestration			
Plenary Sessions <i>Morning</i>		Room No 20 Chairs: Siegrid Steinkellner (<i>before</i>) and Horst Vierheilig (<i>after break</i>)				Room No 21 Chairs: Bohdan Konôpka (<i>before</i>) and Yasuhiro Hirano (<i>after break</i>)			
		Presenting Author		Title		Presenting Author		Title	
8:30	9:00	key note:	Finlay	Roger	Rhizosphere and mycorrhizosphere interactions - Selection, detection, selectivity and function	key note:	Smucker	Alwin	Spatial distributions of plant root carbon storage capacities within soil aggregates
9:00	9:20		Vierheilig	Horst	Strigolactones as signalling compounds in the rhizosphere		Brunner	Ivano	Fine roots of Scot pines with sparsely foliated crowns are not necessarily less vital, and irrigation influences its fine roots only marginal
9:20	9:40		Frey	Beat	Resilience of rhizosphere bacterial populations during phytoextraction of heavy metal polluted soil with poplar		Palviainen	Marjo	Carbon and nitrogen release from tree stumps in boreal clear-cut forests
9:40	10:00		Blagodatskaya	Evgenia	Plant species with different competitive abilities affect microbial growth in rhizosphere		Hulugalle	Nilantha	Potential contribution by cotton roots to soil carbon stocks in furrow-irrigated Vertisols of NW New South Wales, Australia
10:00	10:30	Coffee break							
10:30	10:50		Langer	Ingrid	Arbuscular mycorrhizal fungi systemically compensate crude oil effects on root biomass		Finér	Leena	A global analysis of fine root biomass and biomass production in forest stands
10:50	11:10		Morita	Shigenori	Analysis of determining factors on community structure of soil bacteria in volcano ash soil (Kanto Loam) farming field using PCR-DGGE method		Sah	Shambhu Prasad	The age of fine root carbon may not indicate the age of root
11:10	11:30		George	Tim	Microbial community structure in the rhizosphere of tobacco plants engineered to release phytase from their roots		Sloan	Victoria	Contrasting phenology of fine roots and shoots in arctic tundra plant communities
11:30	11:50		Hage-Ahmed	Karin	Alteration of plant metabolites and root exudate mediated interactions by pathogenic and mycorrhizal fungi in tomato				
12:00	13:30	Lunch							
Symposium Topic		6: Root - soil Interactions: modelling concepts				4.1: COST Action: Belowground carbon turnover in European forests			
Plenary Sessions <i>Afternoon</i>		Room No 20 Chairs: Andrea Schnepf (<i>before</i>) and Sabine Klepsch (<i>after break</i>)				Room No 21 Chairs: Isabella Børja (<i>before</i>) and Heljä-Sisko Helmisaari (<i>after break</i>)			
		Presenting Author		Title		Presenting Author		Title	
13:30	14:00	key note:	Roose	Tiina	Modelling plant soil interaction: from the soil particle to plant scale	key note:	Helmisaari	Heljä-Sisko	Roots and carbon allocation- quantity, quality, and controls?
14:00	14:20		Chopart	Jean-Louis	RACINE 2: A software application for processing spatial distribution of root length density from root intersections on trench profiles		Epron	Daniel	Tracing the transfer of recently assimilated carbon into the soil after in situ ¹³ CO ₂ pulse labelling of trees
14:20	14:40		Leitner	Daniel	Comparison of nutrient uptake between an averaged root system model and true 3D simulation		Persson	Hans	Belowground turnover rate and carbon sequestration of fine roots in the forest soils
14:40	15:00		Manschadi	Ahmad M.	Experimental and modelling study of drought-adaptive root architectural traits in wheat		Löhmus	Krista	Factors affecting fine root and rhizome contribution to soil carbon sequestration in Norway spruce stands
15:00	16:10	Coffee break and Poster Session II: Topic 3, Topic 4 and Topic 6 , 10min Introduction, Chair: Leena Finér							
16:10	16:30		Hund	Andreas	Modeling the root system of maize to predict water and phosphorus uptake		Miegroet Van	Helga	Role of root dynamics in soil organic carbon
16:30	16:50		Tarshis	Ludmila	Structural diversity of roots: comparative analysis and modelling		Montagnoli	Antonio	Fine root seasonal pattern and turnover. A case study of beech stand (<i>Fagus sylvatica</i> L.) in Southern Alps, Italy
16:50	17:10		Schmidt	Sonja	New methods for examining the effects of matric potential and root-soil contact on crop root growth and function				
17:10	17:30		De Jong van Lier	Quirijn	A split-pot experiment with sorghum to test a root water uptake partitioning model				
20:00	22:00	Vienna City Hall, Lichtenfelsgasse 2		Conference dinner with the Governing mayor of Vienna					

Friday

September 4, 2009

Symposium Topic		2: Root uptake, use efficiency and competition				7: Methods for root observation and measurement			
Plenary Sessions <i>Morning</i>		Room No 20 Chairs: Brigitte Klug (<i>before</i>) and Yoav Waisel (<i>after break</i>)				Room No 21 Chairs: Donato Chiatante (<i>before</i>) and Gernot Bodner (<i>after break</i>)			
		Presenting Author		Title		Presenting Author		Title	
8:30	9:00	key note	Waisel	Yoav	Individuality of roots	key note	Gregory	Peter	Measuring root system architecture: Opportunities and challenges
9:00	9:20		Lux	Alexander	Variability in root apoplastic barriers relates with variability of cadmium uptake and translocation		Valentine	Tracy A.	PlantVis: A new software tool for analysis of root growth dynamics
9:20	9:40		Rachmilevitch	Shimon	Root respiration and carbon metabolism in response to self/non-self competition		Fukuzawa	Karibu	Seasonal patterns of fine-root production and respiration of oak seedlings and dwarf bamboo
9:40	10:00		Frédéric	Danjon	Phenotypic plasticity of <i>Pinus pinaster</i> to water stress: Biomass allocation and root architecture		Kautz	Timo	Assessing the root-soil contact in biopores
10:00	11:00	Coffee break and Poster Session III: Topic 2 and Topic 7, 10min Introduction, Chair: Jürgen Friedel							
11:00	11:20		Metselaar	Klaas	Root-depth profiles of important agrucultural crops		Vetterlein	Doris	Dynamics of air gap formation around roots with changing soil water content
11:20	11:40		Kalliokoski	Tuomo	Belowground interspecific competition in mixed boreal forests: The effect of stand developmental stage and soil fertility on the ectomycorrhiza and fine root characteristics		Santner	Jakob	High resolution determination of soil solution phosphorus concentrations in the vicinity of <i>Brassica napus</i> L. roots
11:40	12:00		Puschenreiter	Markus	P depletion in the rhizosphere of <i>Brassica napus</i> : Diffusive gradients in thin films (DGT) in comparison to conventional extraction methods		Wagner	Bettina	3D Modelling of tree root systems - a fusion of 3D Laser scans and 2D tree-ring data
12:00	13:30	Lunch							
Symposium Topic		2: Root uptake, use efficiency and competition				7: Methods for root observation and measurement			
Plenary Sessions <i>Afternoon</i>		Room No 20 Chair: Hans-Peter Kaul				Room No 21 Chair: Ivano Brunner			
		Presenting Author		Title		Presenting Author		Title	
13:30	13:50		McKenzie	Blair	Root plasticity to water and its relevance for drought tolerance		Zanetti	Caroline	Detection of buried tree root samples by electrical measurements
13:50	14:10		Watanabe	Hajime	Utilization of plant growth regulators for improving the recovery rate of fertilizer in rice - Effect of L-β-Phenyllactic acid on growth of rice seedlings		Berja	Isabella	How to statistically treat disappeared fine roots for longevity estimates from minirhizotrons
14:10	14:30		Wishart	Jane	Variation in rooting habit of potatoes: Potential for improving resource capture		Richter	Goetz	Digital image analysis: Simplifying quantification of traits for root morphology and architecture for different sorghum varieties
15:00	15:30	Closing ceremony, Poster Awards							

16:00	18:00	Room No 22	Closing Meeting of the Scientific Committee
-------	-------	------------	---

Saturday

September 5, 2009

8:00	20:00	Meeting point: BOKU, Muthgasse 18 (Venue place)	Scientific Excursion to Schneeberg, Root excavations
------	-------	---	--