

Monday, September 12, 2016

14:00	Registration
16:00 - 16:40	Opening remarks
16:40 - 17:20	Keynote talk: Jarvie: Back to the future: Historical phosphorus fluxes, legacies, and water-quality management
17:20	Keynote talk: Kaasinen: Towards sustainable phosphorus management in the Baltic Sea region
18:00 - 22:00	Welcome reception

Tuesday, September 13, 2016

Theme 2 Sufficiency and Efficiency of Phosphorus Utilization	Theme 3 Phosphorus Recycling - Technologies and Product Applications
09:00 - KEYNOTE Frossard: How much phosphorus do our agro-ecosystems really need?	09:00 - KEYNOTE Kabbe: Circular economy - challenges and opportunities for phosphorus recycling
09:40 - Eichler-Löbermann, Busch, Brand, Stahn, Miegel, Uptmoor: Phosphorus utilization in mixed cropping systems	09:40 - Folberth, Binder: Global flows of nitrogen and phosphorus embedded in agricultural products and recycling potential
10:00 - McLaren, Simpson, McLaughlin, McBeath, Smernik, Guppy, Richardson: The fertilizer phosphorus use efficiency of leguminous-based pastures under different management in the high rainfall zone of south eastern Australia	10:00 - Bünemann, Symanczik, Koller, Menold, Oelmann, Stemann: Evaluation of pyrolysis chars from sewage sludge as phosphorus fertilizers
10:20 - Meyer, Bünemann, Frossard, Maurhofer, Mäder, Oberson: Can inoculation with <i>Pseudomonas protegens</i> CHA0 enhance the mobilization of scarcely soluble phosphorus from soil and uptake by <i>Lolium multiflorum</i> ?	10:20 - Herzel, Adam, Stemann, Hermann: A thermochemical process for P-fertilizer production from sewage sludge ashes investigated from lab to industrial scale
10:40 – 11:10 Coffee Break	
11:10 - Bruun, Harmer, Bekiaris, Christel, Zuin, Hu, Jensen, Lombi: The effect of P speciation on soil availability of P in biochar produced from solid fraction of manure at different pyrolysis temperatures	11:10 - Amann, Egle, Zoboli, Rechberger, Zessner: Impact of co-incineration of refuse derived fuels (RDF) on sewage sludge ash quality with focus on P-recovery
11:30 - Rodehutschord: Possibilities and perspectives to improve P efficiency in livestock feeding	11:30 - Herr, Mocker, Mayer: Phosphorus recycling in the mineral fertilizer industry - co-processing of sewage sludge ash during chemical wet phosphoric acid production
11:50 - Oster, Just, Büsing, Muráni, Polley, Vollmar, Wolf, Ponsuksili, Wimmers: Elucidating the biodiversity of P homeostasis towards improved P efficiency in pigs	11:50 - Ohtake, Okano, Kunisada, Takano, Masuda: Innovatively simple technology for phosphate recovery using a bifunctional adsorption- aggregation agent
12:10 - Zhang, Hao, Tan, Welacky, Wang, Hao, Hong: Long-term cumulative contribution of phosphorus-based swine manure application to soil test phosphorus under corn-soybean rotation	12:10 - Tränckner, Beetz, Koegst, Cramer: Cost-efficient phosphorus removal in rural waste water treatment plants (WWTP)
12:30 – 13:30 Lunch Break	
13:30 – 15:00 Poster Presentations („Slam“) Theme 2, 3	
15:00 – 15:30 Coffee Break	
15:30 – 17:00 Poster Presentations	
17:30 – 19:00 Guided City Walk	

Wednesday, September 14, 2016

Theme 1 Phosphorus Cycles and Fluxes in the Environment	Theme 7 Phosphorus: Characterization and Use Efficiency
09:00 - KEYNOTE Ingall: Nature and dynamics of marine dissolved organic phosphorus	09:00 - Rydin, Sjöberg, Kumblad, Ek: Organic phosphorus forms in Baltic Sea sediments
09:40 - Mellander, Jordan, Bechmann, Shore, McDonald, Fovet, Gacuel-Odoux: Weather amplifications as overriding drivers of P loss in Western Europe	09:20 - Hupfer, Herzog, Jordan, Rothe, Kleeberg: The long-term storage of phosphorus via vivianite formation in iron rich surface sediments is prevented by nitrate
10:00 - Zilla, Angulo-Schipper, Carlos Méndez, Dippold, Kuzyakov, Spielvogel: Effects of spatial P heterogeneity on microbial P uptake and community structure in forest soils	09:40 - Richardson, McLaren, McBeath, McLaughlin, Smernik, Guppy, Moore, Simpson: Inefficiencies associated with phosphorus fertilization of a grazed pasture system
10:20 - Ulén, Stenberg, Wesström: Using a waterflow flashiness index as predictor for phosphorus losses from subsurface drains on a Swedish farm with clay soils	10:00 - Duboc, Santner, Golestani Fard, Tacconi, Zehetner, Wenzel: A complementary set of methods to characterize P availability from fertilizers of varying origin and solubility
10:40 – 11:10 Coffee Break	
11:10 - Shore, Melland, Mellander, Jordan: The relative and combined impacts of storm and low-flow phosphorus pressures on stream ecology in agricultural catchments: a five year study	11:10 - Nkebiwe, Weinmann, Bar-Tal, Müller: Placement of P and N to improve crop nutrient acquisition and yield: a meta-analysis
11:30 - Gruau, Gu, Dupas, Gascuel-Odoux, Rumpel: Complex inter-play of soil characteristics, groundwater dynamics and biogeochemical processes on the release of dissolved phosphorus from riparian vegetated buffer strips	11:30 - Buczko, van Laak: Re-evaluation of Phosphorus fertilizer recommendations based on meta-analyses of long-term field experiments
11:50 - Berthold, Schumann: How the catchment area prevents the “good ecological state” of a shallow estuary. A case study in the coastal water bodies of the southern Baltic Sea	11:50 - Gu, Gruau, Dupas, Gascuel-Odoux, Rivard, Marcel: Distribution of Phosphorus-containing colloids in shallow groundwater from a small agricultural catchment as revealed by the combination of ultrafiltration, ultracentrifugation, ICP-MS and XANES data
12:10 - Nausch, Nausch, Leipe, Neumann: Phosphorus in the Baltic Sea – measured since decades, but really understood?	12:10 - Polain, Guppy, Knox, Wilson, Siebers: Delta18O-P as a marker for depth resolved microbial turnover of phosphorus in native and cropped Australian Vertisols
12:30 – 13:30 Lunch Break	
Excursions (starting times see p. 15)	

Thursday, September 15, 2016

Theme 4 Syntheses of and with Phosphorus-Containing Compounds	Theme 5 The Development of Advanced Phosphorus Analysis Methods
09:00 - KEYNOTE Müller: Recent 09:40 Developments in the chemistry of low-coordinate phosphorus heterocycles	09:00 - KEYNOTE Cade-Menun: Phosphorus 09:40 research and ³¹ P-NMR spectroscopy: Current knowledge and future directions
09:40 - Zhang, Jiao, Michalik, Selent, Franke, Börner: Hydrolysis stability of bidentate phosphites utilized as modifying ligands in the Rh-catalyzed n-regioselective hydroformylation of internal olefins	09:40 - Gros, Ahmed, Kühn, Leinweber: 10:00 Glyphosate binding in soil as revealed by sorption experiments, mass spectrometry and quantum-chemical modeling
10:00 - Holz, Rumpel, Börner: A new 10:20 strategy for the synthesis of P-chiral ligands for asymmetric catalysis	10:00 - Gamble, Northrup, Sparks: Novel 10:20 spectroscopic techniques to examine soil phosphorous speciation
10:20 - König, Heller: Rhodium diphosphine 10:40 complexes in homogeneous catalysis – How to use the catalysts more efficiently?	10:20 - Kubis, König, Selent, Ludwig, Franke, Börner: In situ-IR- 10:40 spectroscopy for the study of kinetic and mechanistic aspects of alkene hydroformylation with metal catalysts modified by phosphorus(III) ligands
10:40 – 11:10 Coffee Break	
11:10 - Steinbauer, Büttner, Werner: CO ₂ 11:30 valorization utilizing new P-based catalysts	11:10 - Oelmann, Sorkau: Quantification of 11:30 enzyme-mediated hydrolysis by means of the oxygen isotope ratio of phosphate in grassland and forest soils
11:30 - Grandane, Schirmer, Suna, Werner: Phosphorus-based 11:50 organocatalysts for base free catalytic Wittig reaction	11:30 - Sjöberg, Thelin, Rydin: Separation 11:50 of inositol phosphate isomers in environmental samples by ion-exchange chromatography coupled with electrospray ionization tandem mass spectrometry
11:50 - Täufer, Hapke, Schulz: P-N- 12:10 Compounds as synthons in cyclisation reactions	11:50 - McIntyre, Evershed, Johnes, Arthur, Lloyd: Application of high 12:10 resolution mass spectrometry to the characterisation of organic phosphorus in environmental matrices
12:10 - Rabeah, Brückner: Highly tunable 12:30 organic-inorganic hybrid materials based on the utility of vanadium organophosphonate clusters	12:10 - von Sperber, Lewandowski, Tamburini, Bernasconi, Frossard, Amelung: Real-time monitoring of 12:30 oxygen isotope exchange between phosphate and water using Raman spectrometry
12:30 – 13:30 Lunch Break	
13:30 – 15:00 Poster Presentations (.Slam`) Theme 1, 4, 5, 6	
15:00 – 15:30 Coffee Break	
15:30 – 17:00 Poster Presentations	
18:30 Conference Dinner	

Friday, September 16, 2016

Theme 6	
From Knowledge to Action: P-Related Issues in Politics and Society	
08:30 - 09:10	KEYNOTE Stoll-Kleemann: Meat consumption, human behaviour and phosphorus
09:10 - 09:30	Douhaire, Stubenrauch: EU regulatory and policy objectives relevant to sustainable agricultural land and phosphorus use
09:30 - 09:50	Garske, Wieding: Changing animal food consumption as part of phosphorus regulation?
09:50 - 10:10	Buckley, McDonald, Leach: What influences the achievement of optimal soil P status at farm level?
10:10 – 10:30 Coffee Break	
10:30 - 10:50	Klages, Osterburg: German fertiliser legislation: current and future rules on phosphorus
10:50 - 11:10	Wang: Strategies for mitigating China's phosphorus resource crisis
11:10 - 13:00	PANEL DISCUSSION "Handling the phosphorus paradox in agriculture and natural ecosystems: scarcity, necessity and burden of P" Moderation: Sonja van Rensen
13:00 End	