

2011 Seminar Series

Prof Yakov Kuzyakov

Biography

Prof Kuzyakov is a Professor of Soil Science of Temperate Ecosystems, University of Göttingen, Germany and a well-known expert in the application of isotopic techniques to study the soil ecosystem processes. Prof Kuzyakov is supported by the 2011 Sir Allan Sewell Visiting Fellowship (Griffith University Short-Term Visit Fellowship) to work with A/Prof Chengrong Chen and other colleagues at the Environmental Futures Centre and Griffith School of Environment between 12 September and 13 October 2011.

Presentation

“Isotopic studies of soil-plant-microorganism interactions”

Plants and microorganisms are in close mutualism and in strong competition by acquiring nutrients from soil. Isotopic approaches allow insights into individual processes and elucidate mechanisms of these interactions at various temporal and spatial scales. Close temporal link between photosynthesis intensity aboveground and localized release of root exudates belowground allows plants to stimulate rhizosphere microorganisms for higher activity and consequently for faster mineralization of soil organic matter and nutrient release. The importance of such hotspots in the rhizosphere, their spatial extension and life time for such soil-plant-microorganisms interactions as priming effects will be elucidated and future changes expected under elevated CO₂ will be discussed.

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Friday 23 September 2011
12:30pm – 2.00pm

Nathan Campus
Bray Centre N54_2.06

Light refreshments will be served.