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## DK Seminar

Jun 28, 2017, 14:15 - 15:30  
Vienna University of Technology,  
Freihaus, green area, 4th floor, 101C

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### Singular SPDEs in domains with boundaries

We discuss how the presence of boundaries and boundary conditions such as Dirichlet or Neumann effect the theory of regularity structures. While a significant part of the theory can be carried through using appropriately weighted modifications of the spaces of modelled distributions, some new difficulties arise due to an important threshold  $-2$  (the codimension of the temporal boundary) being raised to  $-1$  (the codimension of the spatial boundary), which forces the reconstruction operator to be non-unique in a number of relevant situations. As a consequence, in certain equations a ‘boundary renormalisation’ takes place. Joint work with Martin Hairer.