



## Mathematics and CS Seminar

# Language Support for Distributed Systems in Scala

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Host: Dan Alistarh

Recent years have seen a rise in distributed systems for interactive, large-scale data processing. Cutting-edge systems focus on reducing latency and increasing expressiveness in order to provide an interactive and rich experience to more and varied users coming from emerging fields such as data science. Meanwhile, the languages and runtimes underlying such systems face numerous challenges in the context of the severely demanding needs of these new distributed systems; popular languages and runtimes like Scala and the JVM (a) limit the customizability of fundamental operations like serialization, and (b) expose low-level distribution-related errors to application developers and end users when trying to distribute core language features, such as functions. This talk presents three systems that (a) give more control over these primitives to distributed systems builders thereby enabling important optimizations, and (b) increase the reliability of distributing functions and objects. Theoretical, experimental, and empirical results are used in the validation of our work.

**Wednesday, March 7, 2018 09:00am - 10:00am**

Big Seminar room Ground floor / Office Bldg West (I21.EG.101)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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