

# VORTRAG

## **A multi-space sampling heuristic for the vehicle routing problem with stochastic demands**

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**Di, 15.11.2011, 17:00 Uhr, SE 3**  
BWZ Brünner Straße 72  
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### Abstract:

The vehicle routing problem with stochastic demands consists in designing transportation routes of minimal expected cost to satisfy a set of customers with random demands of known probability distribution. In this talk we introduce a novel heuristic approach that uses randomized heuristics for the traveling salesman problem, a tour partitioning procedure, and a set-partitioning formulation to sample the solution space and find high-quality solutions for the problem. Computational experiments on benchmark instances from the literature show that the proposed approach outperforms state-of-the-art algorithms in terms of both accuracy and efficiency.