Mathematical Challenges in Determining
Gas Network Capacities

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Abstract: Regulatory efforts in the German gas market have fundamentally changed the contractual relationship between network operators and customers. One of the key concepts are so called technical capacities of network entries and exits: network operators must publish future capacities on a web platform where transport customers can book them independently. The lecture will discuss hard optimization problems that arise from short-term and mid-term network operations planning in this context, addressing mathematical modeling, theoretical analysis, computational aspects and practical consequences.

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