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Publication date
2023

Document Version
Final published version

Citation (APA)
Rigos, K., Quaglietta, E., & Goverde, R. (2023). *Goal-oriented Self-Organization in Railways*. 123-123. Abstract from RailBelgrade 2023, Belgrade, Serbia.

Session 2.1B: Railway traffic management and rescheduling I
Submission type: Research paper
Presentation type: Oral
Paper ID: [116]

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This paper reviews the concept of self-organisation as defined in different fields and attempts to provide a definition of goal-oriented self-organization that can be applied in the context of railway traffic. Based on the provided definition a modelling approach for self-organising rail traffic is then proposed to set the basis for future research and exploration of such a concept which could revolutionise the current rail transport to meet long-term capacity and competitiveness goals envisaged by the railway industry.

Keywords
Self-organization, Railway Traffic Management, Common Pool Resource