Innovative track geometry data analysis for turnouts

Michael Fellinger¹, Petra Antonia Wilfling¹, Stefan Marschnig¹
¹Institute of Railway Engineering and Transport Economy, Graz, University of Technology, Austria

Track measurement car EM250 of the Austrian Federal Railways:
- designed for the open track
- 3 – 4 times per year
- core network
- since 2001

Available data:
- half gauge right / left unfiltered
- half gauge right / left filtered longitudinal level right / left
- rail surface scan right / left
- acceleration right / left
- alignment right / left
- rail cant right / left
- gauge filtered base gauge
- rail profile scan
- superelevation
- twist 3m / 9m / 16m

Reference signal: half gauge measurement

Identification of an unique point in different signals possible, but there is the necessity for repositioning due to variable position deviations between different measurements.

Data Analysis:
- Verification:
- CoMFaCT

Exact positioning with a limited error of one data break.

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