

Design of a railway line condition monitoring system from the commercial fleet

(thesis @ POLIMI, refer to Prof Di Gialleonardo, Prof Facchinetti, Dr La Paglia)

The possibility to monitor the track conditions adopting in-service vehicle is nowadays becoming a preferable choice for the industry stakeholders. It allows to significantly improve data availability, supporting the current maintenance strategy.

The aim of the thesis is to design a structured solution to manage the acceleration data gathered from a fleet of commercial vehicles, equipped with a simple measuring setup. In particular, anomalous data measured by several instrumented trains along the same portion of the railway line could identify a defect along the track. The thesis will rely on numerical simulations of train track interaction, and possibly on experimental data that may become available from the running fleet.

