

Conclusions

Monitoring the track condition over the whole wavelength band of interest for vibrations.

It is proposed to consider a new domain D0 [0.5m-3m].

It is well within the capabilities of the many track recording cars used by the Infrastructure Managers in Europe.

Track

Dipped rails and joints seem to generate high, broadband vibration levels

Tamping enables a small reduction of very low frequency vibrations

Wheel

In the worst cases observed, a very bad Out-Of-Roundness (OOR) can generate a very high level of vibration compared to an average wheel condition. Different rolling stock and wheel maintenance strategies lead to different OOR development.