

# WHEELS VS. RAILS APPLYING NEW TECHNIQUES TO OPTIMISE RAIL MAINTENANCE

Institution of  
**MECHANICAL  
ENGINEERS**

**7 November 2016**

Institution of Mechanical Engineers,  
One Birdcage Walk,  
London



**FREE AND OPEN TO ALL**

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**PRESENTED BY:**

Dr Paul Allen  
Assistant Director, Institute of Railway Research,  
University of Huddersfield

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[www.imeche.org/events/TLE6386](http://www.imeche.org/events/TLE6386)

Lecture  
Railway Division

# WHEELS VS. RAILS APPLYING NEW TECHNIQUES TO OPTIMISE RAIL MAINTENANCE

7 NOVEMBER 2016

## INCREASING TRAFFIC IS GOOD NEWS FOR RAIL AS A WHOLE, BUT INEVITABLY INCREASES WEAR AND TEAR.

With less time for engineers to carry out maintenance work, the team at the University of Huddersfield have been advising Crossrail on the most innovative and effective ways to solve the dilemma of more work in less time. Dr Paul Allen will illustrate how vehicle dynamics modelling and new rail damage prediction tools are being used to predict rail maintenance needs on the challenging Crossrail track alignment.

This lecture will be as relevant to the Railway Division as it is to the Tribology Group, as it considers the rail engineering aspect of maintenance work alongside the physical capabilities of the materials used.



**DR PAUL ALLEN**  
Assistant Director, Institute of Railway  
Research, University of Huddersfield

Paul Allen is the Assistant Director of the Institute of Railway Research and is a recognised expert in railway vehicle dynamics and wheel-rail interaction. His main research activities are in the field of wheel-rail contact and computer modelling of railway vehicle suspensions, a small and highly specialised area which has a major influence on the behaviour of railways and track. He has been working in this area for over 15 years and has built up a substantial international reputation for the work carried out by himself and the team. Paul is a co-author of the 'Handbook of Railway Vehicle Dynamics,' which includes contributions from many leading experts and is the established text in this field.

### OTHER EVENTS TO LOOK FOR:

#### HIGH SPEED RAIL TECHNOLOGIES

26 September 2016

Institution of Mechanical Engineers, London

Supported by the National Rail Museum, this seminar will look at the 40-year history of high speed rail and how to plan the future infrastructure.

[www.imeche.org/highspeedrail](http://www.imeche.org/highspeedrail)

#### INTERNATIONAL RAIL ACCIDENT INVESTIGATION CONFERENCE

15-16 November 2016

Institution of Mechanical Engineers, London

Update your knowledge and best practices of accident investigation through two days of international, industry-led lectures, workshops, training modules and open discussion forums.

[www.imeche.org/railinvestigation](http://www.imeche.org/railinvestigation)

### PROGRAMME

- 17:15** Registration and refreshments
- 18:00** Lecture to commence
- 19:30** Lecture to conclude. Q&A session

FOR MORE INFORMATION:

VISIT: [www.imeche.org/events/TLE6386](http://www.imeche.org/events/TLE6386)

CALL: +44 (0)20 7973 1251

EMAIL: [eventenquiries@imeche.org](mailto:eventenquiries@imeche.org)