4th March 2019

**YOKOHAMA to Make 4 Presentations at Tire Technology Expo 2019**

YOKOHAMA will make four presentations at Tire Technology Expo 2019, which will take place from Tuesday, 5th March, to Thursday, 7th March, in Halls 19, 20, and 21 at Deutsche Messe, Hannover. Its presentations will address the issues of tyre vibration, tree cellulose as an alternative to carbon black for rubber reinforcement, wet-friction behaviour, and recycled rubber from scrap tyres. Those presentations will include one by a representative of the YOKOHAMA’s group company Alliance Tire Group (ATG) and will thus highlight the integration of that manufacturer of tyres for agricultural machinery and other off-highway tyres into the YOKOHAMA organization.   
  
Tire Technology Expo, sponsored annually by the UK organizer UKIP Media & Events Ltd. and now in its 19th year, is Europe’s most important technology exhibition and conference for tyre manufacturing. The expo is open to participants from all nations, and the presentations cover a diversity of leading-edge advances in tyre technology and research findings of possible significance for tyres.

##### *Synopses of the YOKOHAMA Presentations*

###### *Analysis of rolling tyre vibrations by a deconvolution method*

Naoshi Miyashita  
Miyashita Laboratory, Yokohama Rubber  
  
Analysing how tyres transmit road-surface vibration to vehicles is crucial in creating tyres that engender a comfortable ride. Miyashita will describe the findings of tyre vibration analysis with a deconvolution method, which is widely applied in image analysis and signal processing.

###### *Mechanical properties of styrene-butadiene rubber composite reinforced with cellulose nanofibers*

Masayuki Kawazoe  
R&D Dept., Yokohama Rubber  
  
Cellulose nanofibers derived from wood are promising as a sustainable reinforcement for tyre rubber. Kawazoe will describe the advantages of cellulose nanofibers in that role, compared with traditional reinforcement with carbon black.

###### *Observations of contact behaviour between rolling-sliding rubber and wet road surfaces*

Ryutaro Nakagawa  
Amino Laboratory, Yokohama Rubber  
  
Determining how the tyre rubber makes contact with wet road surfaces is crucial to improving wet-surface performance. Nakagawa will describe research findings that have elucidated the alternation of stick and slip in extremely high-speed cycles in rubber under friction.

###### *Sustainability and optimization of crumb rubber in tyre applications*

Partheban Manoharan  
Alliance Tire Group

Recycling scrap tyres is important in regard to safeguarding the environment and supporting social sustainability. Manoharan will describe an optimal method for reusing small amounts of granulized rubber from scrap tyres in rubber compound for new tyres.