

## Weight and Piece-Wise Analysis for Weigh-In-Motion

### **Disclosure Number**

201002372

### **Technology Summary**

The object here is to process the data from the individual weight sensors to deduce the position of the tire on the weighing pad and therefore calculate the speed of the tire. From this it is easy to calculate axle spacing without contact switches. The force applied to the pad distributes the load over the sensors in a way that can be calculated with moments. Therefore by calculating the moment of the sensor system in each pad we can calculate, to the accuracy the sensors allow, the location of the force.

### **Inventor**

ABERCROMBIE, ROBERT K  
Computational Sciences & Engineering Div

### **Licensing Contact**

SIMS, DAVID L  
UT-Battelle, LLC  
Oak Ridge National Laboratory  
Rm 124C, Bldg 4500N, MS: 6196  
1 Bethel Valley Road  
Oak Ridge, TN 37831

Office Phone: (865) 241-3808

E-mail: [SIMSDL@ORNL.GOV](mailto:SIMSDL@ORNL.GOV)

Note: The technology described above is an early stage opportunity. Licensing rights to this intellectual property may be limited or unavailable. Patent applications directed towards this invention may not have been filed with any patent office.