# Transportation Seminar Series

*Friday, March 13, 2009*
*4 - 5 p.m. in 240 Bechtel Engineering Center*


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## The Continuous Risk Profile Approach for the Identification of High Collision Concentration Locations on Congested Highways


**Abstract:** This presentation is about a new method for monitoring traffic collision data from continuous roadway facilities to detect high collision concentration locations. Many existing methods for detecting collision concentration locations require segmentation of roadways and assume traffic collision data are spatially uncorrelated, resulting in both false positives (i.e., identifying sites for safety improvements that should not have been selected) and false negatives (i.e., not identifying sites that should have been selected). The proposed method does not require segmentation of roadways; spatial correlation in the collision data does not affect the results of analysis. This new method has a lower false positive rate than the conventional sliding moving window approach. This paper shows how the proposed method can proactively identify high collision concentration locations and capture the benefit of safety improvements observed in the project location and in neighboring sites.


**Bio:** Dr. Chung received his BS (1999) degree in Civil and Environmental Engineering from University of California at Berkeley (U.C.Berkeley), and MS and PhD (2004) in Civil and Environmental Engineering from U.C.Berkeley with minors in Statistics and Business Administration. Prior to joining Caltrans District 4 Highway operations, Dr. Chung conducted his research work at Institute of Transportation Study (ITS) at U.C.Berkeley as a post doctorial researcher. Some of his previous research work includes the traffic flow theory, real time traffic control, evaluation of collision response system and the traffic safety.

Please join us for a TRANSOC-sponsored cookie hour in the ITS library at 3:30 p.m.