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Jinho Baik, Alexei Borodin, Percy Deift* (deift@cims.nyu.edu) and **Toufic Suidan.** *On the Bus Problem in Cuernavaca, Mexico.* Preliminary report.

The bus transportation system in Cuernavaca, Mexico has certain innovative features involving people who record arrival times of buses at significant locations, and then pass on the information to drivers of when the previous bus passed a particular location. The bus system in Cuernavaca has been the subject of a recent statistical study by M.Krbalek and P.Seba (J.Phys.A:Math.Gen.33(2000)L229-234). Krbalek and Seba observed that, quite remarkably, the statistics of bus arrivals at any given location is surprisingly well modeled by the Gaussian Unitary Ensemble (GUE) of random matrix theory.

Baik et al. have developed a microscopic model for the bus system in Cuernavaca which explains the appearance of GUE statistics in a natural and simple way. In this talk the speaker will describe various details of the model. (Received August 15, 2005)