

### ***A Statistician at the 2008 Beijing Olympics!***

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This summer I had an amazing experience working as a statistician in the XXIX Olympics in China. What is the role of a statistician in the Olympics? Well, for an event like the sailing, boats don't sail without our wind forecasts!

A team from North Carolina State University (NCSU), which included, Ms. Huiping Miao, (a Ph.D. student in Statistics), Dr. Lian Xie (a professor at the Department of Marine, Earth and Atmospheric Sciences (MEAS)), Dr. Bin Liu (a postdoctoral fellow in MEAS), Mr. Zengan Deng (a student in MEAS) and I worked with a team from the Qingdao Metrological Bureau (QMB) in China. One of our main tasks was to predict if the wind speed at a given hour of given day, would at least be 3 m/s, a required threshold value of the wind speed, which is critical for making decision on whether to hold the sailing boat event at that hour of the day. We worked in collaboration with the QMB to develop a new "Model Output Statistics" (MOS) system to improve surface wind forecasts by reducing biases in an existing (numerical) weather forecast model. The new NCSU MOS system was used to forecast the wind field (speed and direction) during the sailing boat event at the XXIX Olympics held in the oceanfront city of Qingdao, China during August, 2008. It was an exciting work!

Our MOS system was able to reduce the mean absolute error for wind speed and direction by as much as 30-50% when it was tested for the month of August during 2005-2007. The new system also performed very well in forecasting the wind speed during the 2008 Beijing Olympics sailing boat event. Of course, it was fun to visit other places in China and to meet with a number of Chinese scientists at QMB. I never imagined that when I became a statistician, one day I will be at the *Olympics*!!!



Statisticians and meteorologists at work in the QMB, Qingdao, China.

A news article related to this project, titled "Scholars get the Olympic call," appeared in "*The News and Observer*," a local newspaper in NC and its online edition can be found at <http://www.newsobserver.com/front/story/1163385.html> . Also a slide show on some of the selected photos taken during our China visit can also be viewed online at <http://picasaweb.google.com/sujitkg/QMBChina#slideshow>



Cheers! Statisticians and meteorologists at a lunch after a successful prediction event.

Our trip to China was supported in part by the QMB, who has been using our MOS system for the para-Olympics event as well.

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