

Report on Sabbatical Leave  
2006-2007 Academic Year  
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In my proposal for a sabbatical leave, I stated that I would spend time learning about the boundary integral equation method, which is a method for solving certain partial differential equation boundary value problems. I indicated that I would spend part of my time at the University of Tulsa working with Christian Constanda and his colleagues in their Center for Boundary Integral Methods. Christian is one of the world's leading experts in the field.

During the Fall Semester, I spent a large portion of my time reading up on the method in Constanda's book *Direct and Indirect Boundary Integral Equation Methods*. In the Spring Semester, I traveled to Tulsa and spent my time interacting with the Boundary Integral Equation group. I feel that the interactions were highly successful, as I now have a better grasp of the methods they use.

I also spent a little time in Starkville at Mississippi State University. I had some productive discussions there with both engineers and mathematicians.

During my sabbatical leave, I also had another major accomplishment. A research paper, *Modeling Phosphorus Flux in the Sediments of Onondaga Lake: Insights on the Timing of Lake Response and Recovery*, written with Marty Auer (Civil and Environmental Engineering) and two of our students, was at long last accepted for publication in the journal *Ecological Modeling*.

In summary, I feel that my sabbatical leave was very productive. If I had been teaching full time, with all the associated duties, it is highly likely that I would not have accomplished all my goals. I extend my thanks to the Sabbatical Leave Committee and the University for giving me this valuable opportunity.