

April-June stay at Tohoku University

Łukasz Łaniewski-Wołk

Institute of Aeronautics and Applied Mechanics
Warsaw University of Technology
Poland

Scientific work

Under supervision of prof. Obayashi and prof. Jeong, I performed a wide research on methods of improving the original algorithm of multi-objective optimization used at Institute of Fluid Science at Tohoku University.

This research considered many applicable sample methods, both from the literature of the subject and proposed by me. Comparison of the algorithm performance for test functions gave great insight on the important parts of this algorithm.



Proposed by me sampling criterion established great results in these tests, and provide hope for a good performance in real-world problems.

At the end of the scholarship and shortly after the improved algorithm was used for real-world computational fluid dynamics problem with promising preliminary results.

Results of this research was published and presented at 42 Aerospace Numerical Simulation Symposium 2010 at Yonago.

Trips & fun

During my stay I visited Tokyo and Kyoto – which I very much liked. To say the truth I more liked Tokyo – it has a nice climate. But my favourite city was Sendai, and I always came back to it with a warm feeling. I also visited many places near Sendai, and I think that surrounding region is beautiful and is a great advantage of this scholarship. Many walks and trips provided me a great rest after the intensive Japanese-style work.



Friends

Such scholarship is not only work, but people. I met many nice people, and good scientists. I hope they will remember me and we will cooperate in the future and maybe meet somewhere.

Summary

I think I can sum up my experience at his scholarship in few polish words: "Było poprostu świetnie". Which in translation means: "It was just great".

