The Global COE Program
"The Next Generation of Physics, Spun from Universality and Emergence"
Bilateral International Exchange Program (BIEP, invite) report
Send report to: Your responsible Professor in Kyoto University
gcoe-biep@scphys.kyoto-u.ac.jp , gcoe-office@scphys.kyoto-u.ac.jp
(Year/Month/Day)____2010/02/28_____

Invited Student

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Responsible Researcher in Kyoto University

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Research Project

Title	Detector optimization for direction sensitive dark matter search experiments
Duration	From 2010/01/04 to 2010/02/22

Please summarize your activities and results during your stay in Kyoto University.
Also please describe how your stay has been beneficial to the graduate students in the host institute. You can add a sheet, if you need more space.
You can also write any comments and requests to the GCOE program.

Please see attached report for a summary of my research during my stay at Kyoto University.

During my PhD with the DRIFT group I have gained experience in many aspects of operation and development of an underground dark matter experiment and data analysis techniques. I believe that the graduate students at Kyoto University have benefitted from this experience through the constant cooperation and discussions that took place during this exchange. Although technically the NEWAGE detector is very different from DRIFT, the concept is the same and the continued comparisons between the two detectors that inevitably came up during this exchange gave both parties a new perspective on the detectors, providing fresh thoughts on detector development, background reduction, and data analysis techniques. This exchange of knowledge has given both myself and the graduate students at Kyoto University a wider understanding and appreciation of the field of directional dark matter detection.

The exchanging and comparing of analysis code and techniques, specifically that of 3D track reconstruction was also very beneficial to both parties. Although, because of the vastly different 2D imaging technologies, the analysis techniques are far from transferable it nevertheless offered the graduate students insight and ideas into new methods of data analysis.

It is hoped that this will be the beginning of further collaboration between the two groups.