

Sabbatical Leave Report

Richard Brewster
Department of Mathematics and Statistics
September 2010

RECEIVED

SEP 21 2010

RESEARCH

The term of my sabbatical was January 1, 2010 to June 30, 2010. The major achievements are listed below:

1 Work submitted to refereed journals

I completed three manuscripts during the sabbatical which have been submitted. The first submission has been accepted for publication; the others are in the referee process. Co-authors in bold are students.

1. R. C. Brewster, **J. Noel**, Extending precolourings of circular cliques, *Discrete Mathematics*, accepted.
2. R. C. Brewster, G. Hahn, **S. W. Lamont**, **C. Lipka**, Lexicographic products with high reconstruction numbers, submitted to *Discrete Mathematics*.
3. R. C. Brewster, **D. Funk**, On the hamiltonicity of line graphs of locally finite, 6-edge-connected graphs, submitted to *J of Graph Theory*

2 Non-refereed publications

In May 2009, TRU Math and Stats hosted the conference *Sharing Mathematics – A tribute to Jim Totten*. In March 2010, John Grant McLoughlin and myself edited a proceedings of the conference (vi + 105 pages) which was published by the TRU printshop. Copies of the proceedings were distributed to all participants, as well as to other members of the Canadian Mathematics Society who worked with Jim, making the publication national in scope. Copies of the proceedings are in the TRU Research Office and in the library.

3 Work in progress

In my sabbatical plan, I listed several location I would like to visit. In the end, I did visit UVic, SFU, and Université de Montréal during the leave.

1. UVic: During my visit to UVic, Gary MacGillivray and I worked on a project “Restricted Homomorphism Problems”. We also work on the problem of “Weak Near Unanimity Functions” mentioned in my sabbatical plan.
2. Montreal: A benefit of this leave was having time to visit Montreal. Gena Hahn and I have talked of possible joint work for years, and this leave gave me a chance to start