106 學年下學期 數學組書報討論期末報告

Student presentations for Math Seminars, Spring 2018

Thursday, June 14, 2018, 2:00-5:00pm at room SC 4013

Teacher: Prof. Ngai-Ching Wong

2:00-2:30 pm

1) Speaker: Bui Ngoc Muoi（裴玉邁）

2) Title: A D.C. Algorithm for solving the Trust-Region subproblem

3) References: Pham Dinh Tao, Le Thi Hoai An: A D.C. optimization algorithm for solving the Trust-Region subproblem, SIAM J. OPTIM.,Vol. 8, pp. 476–505 (1998)

4) Abstract: his is about the local and global optimality conditions in D.C. programming (the difference of convex functions) and its application for solving the trust-region subproblem (minimizing a quadratic function on an Euclidean ball).

2:35-3:05 pm

1) Speaker: 洪維柏

2) Title: Discrete Cosine Transform

3) Reference:

1. G.Strang, The discrete cosine transform, SIAM Review, vol.41, no.1, 1999 , 135-147
2. R.Rousseau and Y. Saint-Aubin, Mathematics and technology, Springer Undergraduate Texts in Mathematics and Technology, Springer, New York, 2008

4) Abstract: I will introduce the basic properties about discrete cosine transform.

3:10-3:40 pm

1) Speaker: 李金彥

2) Title: R-diagonal elements

3) Reference: Lecture 15 / Lectures on the combinatorics of free probability / Alexandru Nica, Roland Speicher / Cambridge University Press / 2006

4) Outline: I will introduce some basic properties of R-diagonal elements.

4:00-4:30 pm

1) Speaker: 莊昇翰

2) Title: A finite division ring is a field

3) Reference:

1. On Wedderburn's theorem about finite division algebras, Madam 著作 - 2003 (https://www.math.uni-bielefeld.de/LAG/man/099.pdf)
2. Modern algebra an introduction (sixth edition), John R. Durbin 著作
3. 環結構 (第七章 除環), Nathan Jacobson 著 王德生 譯
4. Wedderburn's Theorem on Division Rings: A finite division ring is a field.

   網路筆記 (http://math.colgate.edu/math320/dlantz/extras/Wedderburn.pdf)
   Lecture 15 / Lectures on the Combinatorics of Free Probability / Alexandru Nica, Roland Speicher / Cambridge University Press / 2006

4) Outline: A finite division ring is a field.

4:30-5:00 pm

1) Speaker: 鍾明哲

2) Title: Eternal Domination

3) Reference: William F. Klostermeyer, Domination, Eternal Domination, and Clique Covering, arXiv:1407.5235v1 [math.CO] (2014)

4) Outline: I will introduce some basic properties of eternal dominating sets of a graph.