

POSTECH WORKSHOP ON CODING THEORY

(포스텍 부호이론 워크샵)

www.math.louisville.edu/~jlkim

We are pleased to announce the POSTECH Workshop on Coding Theory, POSTECH, Pohang, South Korea.

Aim: Coding theory is the study of reliable communication. Coding theory has interacted with several mathematical areas including Algebra, Discrete Math, Number Theory, and Algebraic Geometry. The purpose of this workshop is to meet mathematicians in Korea interested in Coding Theory to exchange and present their ideas.

Below is the schedule. Please circulate this announcement for those who are interested in the workshop, and let them contact one of organizers for further information.

Place: Mathematical Science Building (수리과학관, 수학과) #404

Date: December 9-10, 2011

Schedule:

Friday (Dec. 9, 2011)

9:00-9:10 Opening remark

9:10-10:00 Young Ho Park (박영호, 강원대)

The classification of self-dual codes over Z_p^2 of length ≤ 4

10:00-10:30 break

10:30-11:20 Ling San (Nanyang Technological University, Singapore)

From classical block codes to quantum codes

11:30-12:00 Suhak Chok (최수학, 포스텍)

A classification of posets admitting the shape MacWilliams identity

12:00-2:00 Lunch

2:00-2:50 Kwanky Lee (이관규, 조선대)

Fast Unique Decoding of AG Codes

3:00-3:50 Sunghyu Han (한성휴, 한국기술교육대학교)

Construction of self-dual codes over $F_2 + uF_2$

4:00-4:50 Jong Yoon Hyun (현종윤, 이화여대)

Results on equitable partitions of a Hamming space

6:00-9:00 Dinner

Saturday (Dec. 10, 2011)

9:00-9:50 Dae San Kim (김대산, 서강대)

A family of sequences with large size and good correlation property

10:00-10:50 Seon Jeong Kim (김선정, 경상대)

Codes from Ballico-Hefez curves

10:50-11:20 break

11:20-12:10 Seungkook Park (박승국, 숙명여대)

Distance bounds for algebraic geometric codes

12:10-2:00 Lunch

2:00-2:50 Eun Ju Cheon (천은주, 경상대)

On length optimal codes

3:00-3:50 Dongchan Kim (김동찬, 서강대)

(a) Proofs for monotonicity and duality of generalized minimum poset weights using demi-matroid.

(b) A Riemann Hypothesis Analogue for Near-MDS Codes

4:00-4:30 Phan Thanh Toan(포스텍)

Improved upper bounds on $A(n,d)$

Other participants:

오동렬 (한밭대), 정유식 (서강대), 최환혁 (강원대), 박숙영 (강원대), 천윤환 (육사)

Organizers:

Hyun Kwang Kim (김현광, POSTECH, Korea)

Jon-Lark Kim (김종락, University of Louisville & POSTECH)