

CIMPA REPORT

CIMPA-UNESCO-TUBITAK Summer School on

Codes over Rings

Middle East Technical University,

Ankara, Turkey

18th August-29th August 2008

The School program consisted of 14 courses of totally 53 hours talks spread over eight full days and two half days held at the Department of Mathematics of Middle East Technical University, Ankara, Turkey. A list of speakers and talk titles is attached as part of this report. There were 47 participants coming from Turkey(23), Iran(6), Iraq(5), India(4), Tunisia(3), Germany(2), Jordan(1), France(1), Spain(1) Philippines(1). They ranged in age from graduate students and postdocs to emeritus professors. And, there were 14 lectures coming from different countries ranging from France, Turkey, USA, Germany, Australia, Bulgaria, Singapore, China. The program permitted all participants to attend all the talks. Each course started with classical material and took the audience to the frontier of the subject.

Social activities included a Welcome Reception on the Monday evening, a trip to Capadoccia on Saturday, and a School Banquet on Thursday evening. These activities provided ample opportunity for interaction among participants.

All of the participants were lodged in the student guesthouse on the campus and the lectures were stayed in the guesthouse, placed five minutes walking from the avenue.

The organization covered the transportation, accommodation and meals (except dinners) of lecturers. We covered the accommodation expenses of the participants. We also partially supported the transportation and meal expenses of some participants. We also organized some taxis for lecturers arriving to and leaving from Ankara Esenboga airport. The coffee and tea were served during breaks.

The School is financially supported by CIMPA, TUBITAK (The Scientific and Technological Research Council of Turkey), Middle East Technical University and Institute of Applied Mathematics. We are all grateful for their support.

TITLES OF LECTURES

Speaker	Title
Aleksandr Nechaev	Polylinear recurrences
Ferruh Ozbudak	Repeated Root Cyclic and Negacyclic Codes
Gabriele Nebe	Self-Dual codes over rings and ass. Clifford-Weil Groups
Ivan N. Landjev	Linear codes Over finite chain rings
Jacques Wolfmann	Cyclic and negacyclic codes over Z_4 and their binary images
Jay Wood	MacWilliams formula for Frobenius rings
Patrick Solé	Four Applications of Z_4 -codes and their $GR(4, 2)$ analogues
Philippe Langevin	Gauss sums and cyclic codes over rings
San Ling	Quasicyclic codes over rings
Serdar Boztas	From Z_4 sequences to QAM sequences & From Z_4 codes to orthogonal arrays and cryptographic constructions
Sergio R. Lopez-Permouth	Cyclic codes over rings
Thomas Honold	Linear codes over finite chain rings
Tor Helleseeth	Codes and sequences over Z_4

TIMETABLE

CIMPA-UNESCO-TÜBİTAK Summer School 2008: Codes over Rings												
August 18-29, 2008, METU, Ankara Turkey												
	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug
09:00 – 09:50	Late Reg	Coffee	Coffee	Coffee	Coffee	Week	End	Coffee	Coffee	Coffee	Coffee	Coffee
10:00 – 10:50	Late Reg	Nechaev	Wolfmann	Langevin	Wolfmann	End	Week	Langevin	Langevin	Wood	Nebe	Wood
11:00 – 11:50	Opening	Lopez	Landjev	Landjev	Landjev	Week	End	Landjev	Wood	Nechaev	Wood	Nebe
12:00 – 13:30	Lunch	Break	Lunch	Break	Lunch	End	Week	Break	Lunch	Break	Lunch	Closing
13:30 – 14:20	Sole	Wolfmann	Nechaev	Lopez	Lopez	Week	End	Wolfmann	Nebe	Nebe	Nechaev	
14:30 – 15:20	Ling	Wood	Honold	Wolfmann	Honold	End	Week	Honold	Honold	Wood	Greferath	
15:30 – 16:00	Coffee	Coffee	Coffee	Coffee	Coffee	Week	End	Coffee	Coffee	Coffee	Coffee	
16:00 – 16:50	Wood	Lopez	Honold	Landjev	Wood	End	Week	Helleseth	Nechaev	Nechaev	Boztas	
17:00 – 17:50	*	Ling	Ling	Ozbudak	Nechaev	Week	End	Helleseth	Boztas	Boztas	Nechaev	

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