

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES
MATH CLUB AT CCSU

COLLOQUIUM

Friday, April 3

2:00 – 3:00 PM

Maria Sanford, Room 101

ON CRAFT'S CONJECTURE AND RELATED RESULTS

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(Joint work with Ivan Gotchev)

ABSTRACT

In 1995 David Craft stated the following conjecture: For each integer $n > 1$ there is a coloring of the edges of the binary hypercube Q_n with n colors, one being black, such that the black edges together with the edges of any other color induce a Hamiltonian cycle. It was known to David Craft that such colorings exist when $n = 2, 3$ and 4 . In 2005, Rastislav Kralovic and Richard Kralovic proved that Craft's conjecture holds true for every odd $n > 1$. In this talk a solution of Craft's conjecture for $n = 6$ shall be presented and some corollaries from it and related results shall be discussed.

This colloquium is sponsored by the Math Club at CCSU and is aimed at undergraduate and graduate students interested in mathematics. No previous knowledge is needed to understand this talk. All recipients of the CSMP scholarship are urged to attend.

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