Abstract:

In 2002, I was asked to schedule a rather unusual soccer tournament with 7 teams. After doing that, I started to wonder (as every mathematician would do) about a general solution for the existence of such tournaments. In 2004, along with my then-students Petr Kovar and Tereza Kovarova I wrote my first article about this topic. Since then, about 40 articles were published in this area. Ten years and ten articles later, I am still interested in this exciting topic. Jerimi Walker wrote her Master's Project in this area and published her results in a journal. Michael Lillegard wrote his Master's Thesis on a related topic, and Aaron Shepanik has made a good progress in his Master's Thesis already. Sylwia Cichacz-Przenioslo became interested in it when she was visiting our department in 2007 as Fulbright Junior Research Fellow, and by now is the leading author in this area with about 12 papers.

I will show how sports tournaments are related to distance magic graph labelings and present some techniques for constructing such tournaments, including those most recently obtained by Aaron. I will also mention some open problems that may be good topics for further student research.

Thursday, November 20, 2014
3:00-4:00 PM
SCC 130
EVERYONE IS WELCOME

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