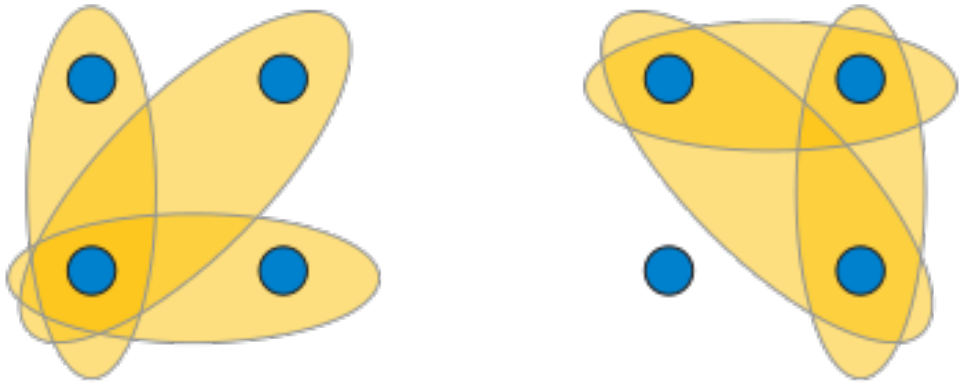
VCU Discrete Mathematics Seminar

Injective Proofs of the Erdos-Ko-Rado and Hilton-Milnor Theorems

Prof Glenn Hurlbert
VCU!

Wednesday, Sept. 20
1:00-1:50
4145 Harris Hall



Let F be a family of r-subsets of 1,2,...,n. We say that F is intersecting if every pair of its sets intersect. The special case when some element (its center) is in each of its sets is called a star. The Erdos-Ko-Rado Theorem (1961 [really 1938]) states that, when $n > 2r$, the largest intersecting family is a star. The Hilton-Milnor Theorem (1967) states that, when $n > 2r$, the largest non-star intersecting family is a near-star: a star with an extra set not containing its center. Vikram Kamat and I recently devised the first injective proofs of these classical results. I will share them with you in this talk.

For the DM seminar schedule, see:

`http://www.people.vcu.edu/~dcranston/DM-seminar.html`