

B I - C O M A T H E M A T I C S
C O L L O Q U I U M

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*“Knots, Links, Braids...
and Paper Strips”*

Monday April 4, 2011

Talk at 4:15 p.m. – Park 338
Tea at 4:00 p.m. – Park 355, Math Lounge

Abstract:

We begin with a familiar demonstration - the effect of cutting a Mobius band in half along its core circle - and then explore different generalizations of this demonstration. Our results will lead us naturally to a discussion of some fundamental concepts in topology and knot theory, including orientability, crossing number, linking number, and braids. As a consequence of our generalized demonstration, we will obtain the complete classification of closed 2-braids, and describe an easy method for constructing (both physically and abstractly) an n -component link in which any two components link exactly once.

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