

# BI-CO MATHEMATICS COLLOQUIUM

Karl Schaffer  
De Anza College

## *“The Dance of Mathematics and the Mathematics of Dance”*

**Monday, September 10, 2012**

Talk at 4:00 – Park 338  
Tea at 3:45 – Park 355, Math Lounge

### Abstract:

Mathematics and dance are linked in many beautiful and surprising ways: the geometry of the moving body, the symmetries of dancers arrayed across the stage, the rhythmic patterns of dance phrasing, the complex connections between dancers, the varied paths through space. In this talk we will examine the ways that choreographers employ mathematical concepts, both consciously and unconsciously, and see how mathematical questions and examples sometimes arise within dance. Some examples we will briefly touch on include polyhedral string figures, the Euler phi function in rhythm, N-body choreographies and folk dance permutations, swirling movement and the quaternions, and the Fibonacci numbers within the ballet barre!

BRYN MAWR COLLEGE