

1106-VX-1623 **Autumn Dailey** and **Paul M. Wrayno*** (paul.wrayno@cnu.edu). *Broadening Student Groups Through Combinatorial Designs.*

When assigning group work projects over the course of the semester, instructors tend to prefer that either the groups remain fixed or that students work with as many other students as much as possible. Partitioning students into teams over a series of projects without students repeating a teammate can be challenging. In this talk we discuss the history of this problem, notably the Kirkman School Girl problem. We will discuss Kirkman Triple Systems, which can be used to form 3-person teams for each project with each student working together exactly once when the class size is $6k + 3$ students. We will explore why this is not possible for class sizes of $6k$ students and present our work on a partial Kirkman Triple System for a class of 36 students to assist a colleague with his lab group schedules. (Received September 14, 2014)