

MathFest 2021

Online

August 4-7, 2021

Session: Games in Math Circles, Part B, August 6, 2021

Sponsored by SIGMAA on Math Circles for Students and Teachers

The TAMU Math Circle Apps Website

Philip Yasskin, Texas A&M University

Carl Van Huyck, Julia Robinson Mathematics Festival

Joshua Goldstein, Texas A&M University

Visit <https://mymathapps.com/mymacalc-sample/>

Click on TAMU Math Circle Apps and play some 2-Person Games

Abstract:

In the fall of 2020, the TAMU Math Circle switched to an online format. We needed to find activities that worked online over Zoom. Among other activities, we decided that many classic two-person games might work. We invited Carl Van Huyck, who was already programming for Phil Yasskin, to help program these games. These have grown into the TAMU Math Circle Apps collection which are available at the MYMathApps website: <https://mymathapps.com/mymacalc-sample/MathCircleApps/MContents.html>. We will discuss the classic games: Subtraction, NIM, Hex Bridges and Square Bridges along with extensions we call Odd Subtraction, Odd NIM, Tip The Die and Pop Tac Toe. The website also includes activities for conceptualizing radian measure, counting Euler Numbers, counting colorings of the vertices of a cube and conceptualizing the right-hand rule.