1125-I1-2720   **John H Wilson*** (`john.wilson@centre.edu`), Centre College, 600 West Walnut Street, Danville, KY 40422. *Mathematics in a Dramatic Warm-up Exercise.*

Many drama warm-up exercises involve actors standing around in a circle responding to cues given by other actors in the circle. In this talk, I devise a mathematical model for one such exercise and present some mathematical questions that arise. In the warm-up, which I will call Swing, an actor calls out a cue that passes the cue-calling responsibility clockwise to another actor in the circle who in turn calls a cue and so forth around the circle of actors. The "Swing" cue passes the action to the person immediately adjacent to the caller. The "Ramp" and "Tunnel" cues skip one and two people respectively. By using modular arithmetic and some basic number theory we will identify sequences of calls that are fair and balanced. (Received September 20, 2016)