## pingpong variations

bethchen@umich.edu

## trajectory

pingpong [cooperative/competitive]

after the ball lands on your side, you hit the ball towards your opponent.

the ball must not touch the ceiling.

the ball must land on your opponent's side.

ceiling pingpong [cooperative/competitive]

after the ball lands on your side, you hit the ball upwards towards the ceiling.

the ball must touch the ceiling.

the ball must land on your opponent's side.

air pingpong [cooperative/competitive]

before the ball lands on your side, you hit the ball upwards towards your opponent.

(in competitive play, you must hit the ball upwards or horizontal, but not downwards)

the ball must not touch the ceiling.

the ball must land on your opponent's side (if she misses).

air ceiling pingpong [cooperative]

before the ball lands on your side, you hit the ball upwards towards the ceiling.

the ball must touch the ceiling.

the ball must land on your opponent's side (if she misses).

reverse pingpong [cooperative/competitive]

before the ball lands on your side, you hit the ball downwards on your own side.

the ball must reach its highest point on your opponent's side.

the ball must land on your opponent's side (if she misses).

reverse ceiling pingpong = ceiling pingpong

reverse air pingpong = air pingpong

reverse air ceiling pingpong = air ceiling pingpong

## balls

strict k ball pingpong [cooperative/competitive for k = 1; cooperative for  $k \ge 2$ ]

there are k balls in play simultaneously.

play is over when any ball goes out of play.

lenient k ball pingpong [cooperative/competitive for k = 1; cooperative for  $k \ge 2$ ]

there are k balls in play simultaneously.

play is over when all balls go out of play.

resurrection k ball pingpong [cooperative for  $k \ge 2$ ]

there are k balls in play simultaenously.

play is over when all balls go out of play.

players try to resurrect dead balls, while continuing to play live balls.

(in cooperative play, everyone gets bonus points if the balls collide in midair!)

## players

(m,n) small rotation pingpong [cooperative/competitive]

there are m players on one side, and n players on the other side.

each player must take turns hitting the ball.

m+n large rotation pingpong [cooperative/competitive for  $m+n \ge 3$ ]

each player must take turns hitting the ball.

after hitting the ball, the player runs to the other side of the table.

rotation can be clockwise, counterclockwise, or alternating.

the side with more people serves the ball.

sitdown singles pingpong [cooperative/competitive] players must remain seated during play. sitdown doubles pingpong [cooperative/competitive] players must remain seated during play. anyone can hit the ball at any time. there is no rotation, as with standup doubles pingpong. hands dominant hand pingpong players use their dominant hand. nondominant hand pingpong players use their nondominant hand. single alternating hand pingpong players use 1 paddle/racket at all times. after hitting the ball, players must switch hands. ball-in-hand alternating hand pingpong players use 1 paddle/racket at all times. after hitting the ball, players must switch hands. players must hold an extra ball in their hands, which must be switched along with the paddle/racket. double alternating hand pingpong players use 2 paddles/rackets at all times (even during the serve). after hitting the ball, players must switch hands. paddle pingpong players use a pingpong paddle to hit the ball. badminton pingpong players use a badminton racket to hit the ball. handle pingpong players use the handle (not the flat part) of the pingpong paddle. badminton handle pingpong players use the handle (not the flat part) of the badminton racket. hands pingpong players use the palm or back of their hands. the ball must bounce freely off the player's hands, which must be kept open and flat at all times. net strict net pingpong [competitve] each ball is required to touch the net (even on the serve). play stops when a ball fails to touch the net. if your ball does not touch the net, your opponent gets a point. lenient net pingpong [cooperative/competitive] each ball is encouraged to touch the net (even on the serve). play continues when a ball fails to touch the net. if your ball does touch the net, you get a point. (in cooperative play, everyone celebrates!) ambivalent pingpong [cooperative/competitive] it is ok if the ball touches the net (even on the serve).

regular pingpong [cooperative/competitive]

it is ok if the ball touches the net (but not on the serve).