```
run(args : String . . .) : () = do
    needleLength = 20
    numRows = 10
    tableHeight = needleLength numRows
    var hits : ℝ64 = 0.0
    var n : ℝ64 = 0.0

    println("Starting parallel Buffons")
    recordTime(6.0)
    for i ← 1 # 3000 do
        δ_X = random(2.0) − 1
        δ_Y = random(2.0) − 1
        rsq = δ_X^2 + δ_Y^2
        if 0 < rsq < 1 then
            y_1 = tableHeight random(1.0)
            y_2 = y_1 + needleLength(δ_Y/sqrt(rsq))
            (y_L, y_H) = (y_1 MIN y_2, y_1 MAX y_2)
            if ceiling(y_L/needleLength) = floor(y_H/needleLength) then
                        atomic do hits += 1.0 end
            end
            atomic do n += 1.0 end
        end
    end
    probability = hits/n
    π_est = 2.0/probability
    printTime(6.0)
    println("")
    print("estimated Pi = ")
    println(π_est)
    end
end
```