

Figure 1: In this plot we can see that if our code has few moves ( $10^6 - 10^7$ ) then is not convenient to parallelize it. Otherwise, if the code has a great number of moves (say  $\geq 10^8$ ) then it is worthwhile to parallelize it

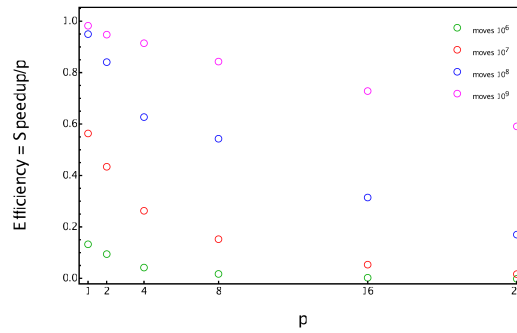


Figure 2: We plot the efficiency.

## 0.1 Report: Weak and Strong Scalability

We have seen the weak and strong scalability. We tested a simple monte-carlo code to compute  $\pi$ , both in a serial manner and a parallel one. The task was to establish when is worthwhile to parallelize a code. I wrote two bash script to implement the weak and strong approach and extract the elapse time of the execution. These are:

- pi\_scrip\_w.txt
- pi\_scrip\_s.txt

In the captions of the two figures some details are explained.