

## 4 - Can the NIM Game be parallelized?

In my opinion, if we follow the [rules](#) of the classic NIM game, then it can **not** be parallelized, because the processes won't be independent between themselves: each move has an influence on the next one (processes would need to wait from the conclusion of the others in order to proceed, which defeats the purpose of parallelization) and the player can remove pieces from different piles, therefore we can't divide the heaps through the processes and expect that everything adds up properly.

However, the learning process to train the model can very much be divided through processes. The most obvious solution would be to order each process to play a certain amount of simulated complete games and then gather all the weights that resulted from the training process in the master process.