

**With nowadays computational technology advance, mathematical model can be approximated numerically and can be compute and simulate by computer. But the weakness of Numerical scheme is that it takes long time to compute. In this writing, OpenMP will be used to compute hydrostatic relaxation scheme for Shallow Water Equation – Exner in bedload transport using parallel algorithm and will be compared with the serial algorithm. The results are both algorithm can run the scheme without error and Parallel algorithm is faster than serial algorithm in each cases with various numbers of loop from 1000x200 tto 1000x6400**

**Keywords: OpenMP, SWE-Exner, SpeedUp, Efficiency**