WORKSHOP-ul
NEMO - NumErical MOdelling using high performance computing infrastructures

1) PRESENTATION TITLE:

Comparison between the main parallel computing libraries for multiprocessor systems

2) AUTHORS, AFFILIATION:

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3) ABSTRACT:

This paper tries to capture the main aspects of implementation of parallel computing primitives in multiprocessor environment provided by the OpenMP library and Microsoft Task Parallel Library (included in .NET Framework 4). Besides a comparative analysis of methods for parallelization of repetitive sequences, the implementation of elements of semaphore type and barrier type, this paper aims to analyze the performance of the code generated by the two libraries in implementation of classical parallel computing algorithms: sorting strings, matrix calculation or solving large systems of equations.

4) POSITION OF CORRESPONDING AUTHOR:

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