

# **The 2<sup>nd</sup> Generation Intel Core Processor. Architectural Features Supporting HPC**

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## **Abstract**

In this paper we take a look at what the 2<sup>nd</sup> generation Intel Core processor brings to high performance computing. We compare two configurations of Intel CPU based systems and present a performance assessment of these two platforms. We compare two generations of CPU systems utilizing a single socket platform across a number of HPC benchmarks and macrocodes focused on different performance criteria, compare the results and discuss the implications for HPC.

*Keywords:* 2<sup>nd</sup> generation Intel Core processor; AVX; performance; HPC; Intel