Software Development Workshop
for Technical Computing and HPC
Tel Aviv - Thursday 21 Nov. 2019
Hilton Tel Aviv Hotel

AGENDA

High Performance Code & Introducing Intel® oneAPI

Important: some of the sessions have hands-on labs where you can experience the tools and the methods yourself through the browser connected to a cloud instance (provided during the session with no software installation required). **bring your laptop!**

Timing	Sessions
08:30 – 09:30	**Registration & Light breakfast**
09:30 -10:00	**What you should know about the Intel® oneAPI project** **Ralph de Wargny, Intel Software**
10:00 – 10:30	**Intel® oneAPI - Concept and Language** **Michael Steyer, Technical Consulting Engineer, Intel**
10:30 – 11:00	**Developing code for the Intel® architecture: towards maximum performance** This session will offer insights into the current and future Intel® hardware platforms tailored to the needs of software developers, software architects and HPC experts. Learn how Intel® Software Development Tools will help you to achieve optimal performance via vectorization, memory access tuning, and threading. **Michael Steyer, Technical Consulting Engineer, Intel**
11:00 – 11:15	**Coffee Break**
11:15 - 12:00	**High Performance for Machine Learning** How to harness the power of Intel's optimized libraries A look at how the Intel Intel® Math Kernel Library (MKL) and the Intel® Data Analytics Acceleration Library (DAAL) are used to provide outstanding performance for software developers and data scientists when using the Intel® distribution of Python. **Stephen Blair-Chappell, Chief Architect, Bayncore Labs**
12:00 – 13:00	**Software performance optimization using Intel® Advisor** - Part 1 Intel Advisor is a powerful tool for tracking down and solving vectorization problems. This demo introduces Intel Advisor and especially the survey and the trip count analyses. Using Advisor we track all the performance issues of the previously introduced classical physics simulation code. We will explain how to read and interpret Advisor's outputs to improve the vectorization and introduce the roofline analysis. **Stephen Blair-Chappell, Chief Architect, Bayncore Labs**
13:00 – 14:00	**Lunch break**
14:00 - 14:30	**Software performance optimization using Intel® Advisor** - Part 2 **Jimmy Kromann, Senior Consultant, Bayncore Labs**
14:30 – 16:30	**LAB: Advanced profiling of applications using Intel® VTune™ Amplifier** Learn how to use some of the advanced features of Intel® VTune™ Amplifier profile your applications. See how you can use event-based and architectural analysis to fine-tune your code so that it is taking full advantage of the latest processor features of the target CPU. **Anders Christensen, Senior Consultant, Bayncore Labs**
16:30 – 17:00	**Networking with drinks and snacks**