

# Intel oneAPI AI Workshop

## October 14<sup>th</sup>, 2021

**Edmund Preiss**  
**Business Development**  
**Software and Advanced technology Group**

# AGENDA

Thursday; October 14th, 2021

TOPIC				Presenter
09:00	09:05	00:05	Welcome and Introduction to the Intel AI workshop	Edmund Preiss
Morning Theme : Accelerated Machine Learning with Intel				
09:05	09:45	00:40	Hardware acceleration for AI and Intel® oneAPI AI Analytics Toolkit + Quiz	Dr. Séverine Habert
09:45	11:00	01:15	How to accelerate Classical Machine Learning on Intel Architecture + Quiz	Roy Allela
11:00	11:05	00:05	<i>Bio Break</i>	
11:05	12:15	01:10	Enhance your Experimentation with SigOpt + Quiz	Tobias Andreason
12:15	13:30	01:15	<i>Lunch Break</i>	
Afternoon Theme : Accelerated Deep Learning with Intel				
13:30	14:50	01:20	Optimize Deep Learning on Intel – Same code just faster!	Shailen Sobhee
14:50	15:00	00:10	<i>Bio Break</i>	
15:00	15:40	00:40	Distributed Training + Quiz	Shailen Sobhee
15:40	15:50	00:10	<i>Bio Break</i>	
15:50	16:30	00:40	Easily speed up Deep Learning inference – Write once deploy anywhere!	Dr. Séverine Habert
16:30	16:35	00:05	<i>Bio Break</i>	
16:35	16:55	00:20	Quantization in Deep Learning + Quiz	Shailen Sobhee
16:55	17:00	00:05	Wrap up	Edmund Preiss

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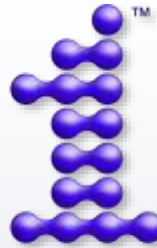
# GOALS & LOGISTICS FOR TODAY

- Get a high level overview on Intel's oneAPI HPC Development Tools
- Focus on Intel's performance optimized oneAPI AI Analytics Toolkit
  - Classic Machine Learning
  - Deep Learning Development Toolkits
- Ask questions in the chat room
- Feedback / Questionnaires
- Quiz : Win one of 5 Neural Compute Sticks
  - <https://software.intel.com/content/www/us/en/develop/hardware/neural-compute-stick.html>



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# oneAPI – A Standard & Intel Development Tools



**oneAPI**

Open Industry  
Specification



**oneAPI**

Intel Product

# Intel® oneAPI Toolkits

A Complete Set of Proven Developer Tools Expanded from Intel CPU to Intel XPU /Accelerators

## Intel® oneAPI Base Toolkit

Native Code Developers



A core set of high-performance tools for building C++, Data Parallel C++ applications & oneAPI library-based applications

## Add-on Domain-Specific Toolkits

Specialized Workloads



### Intel® oneAPI Tools for HPC

Deliver fast Fortran, OpenMP & MPI applications that scale



### Intel® oneAPI Tools for IoT

Build efficient, reliable solutions that run at network's edge



### Intel® oneAPI Rendering Toolkit

Create performant, high-fidelity visualization applications

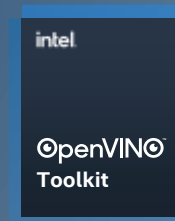
## Toolkits powered by oneAPI

Data Scientists & AI Developers



### Intel® AI Analytics Toolkit

Accelerate machine learning & data science pipelines with optimized DL frameworks & high-performing Python libraries



### Intel® Distribution of OpenVINO™ Toolkit

Deploy high performance inference & applications from edge to cloud

intel<sup>®</sup> software

# QUIZ

- Questions about content presented today
- Winnining Formula : Speed and Correct answers
- Please take a monitor snapshot of winner announcement with your name
  - Use name that correlates with your email address
- Send snapshot from your email address to [edmund.preiss@intel.com](mailto:edmund.preiss@intel.com)

# OTHER (RECORDED) TOOLS WEBINARS

## **Intel® oneAPI Rendering Toolkit Webinar ( 1 day ) :**

Rendering 08.06.2021:

<https://www.ai-spektrum.de/veranstaltungen/intel-oneapi-rendering-toolkit-workshop.html>

Make use of simulated data and virtualize them in high fidelity photo realistic fashion

## **Intel® oneAPI AI Analytics Toolkit webinar – 1 day :**

AI webinar on 15.06.2021:

<https://www.ai-spektrum.de/veranstaltungen/artificial-intelligence-on-intelr-platforms-using-intelr-oneapi-ai-analytics-toolkit-openvino-workshop.html>

Intel performance optimized AI tools kits for classic and machine learning

## **Intel® oneAPI technical Webinar ( 2 days ) - co-hosted with Zuse Institute Berlin**

oneAPI Webinar on March 2<sup>nd</sup> and 3<sup>rd</sup>, 2021

<https://www.zib.de/workshops/2021/oneapi>

<https://www.hlrn.de/doc/display/PUB/Joint+NHR@ZIB+-+INTEL+++oneAPI+Workshop>

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