

Type	Topics	Sub-topics	Duration
Welcome and presentation			10
Keynote	Context and Challenges	<u>Introduction/Keynote (TBD)</u> - Presentation of the context and challenges - Presentation of current status of certification recommendations / processes in aeronautics or automotive (e.g, ARP).  <b>Talk: Dmitri KIROV, Collins Aerospace</b>	35
		Question	10
Subject 1	Brigding the gap between Training and Implementation models	<u>Trusting the training environment</u> - Overview of the technologies used for model training - How do we ensure compliance between the (e.g.) Python model and the specification model?  <b>Talk: Dumitru POTOP-BUTUCARU, INRIA</b>	15
		DISCUSSION	20
Subject 2	Specifying Design Models models	<u>Towards a standardized ML description format for safe systems</u> - What do we expect from a ML format for critical systems?  <b>Talk: ONNX and the SONNX initiative, Eric JENN, IRT</b>	15
		DISCUSSION	20
Subject 3	From models to Implementations	<u>Under the Hood: model transformation and optimizations</u> - How do we get from the model to its implementation? - What kind of optimizations are performed on DNN? - How to gain confidence in automatic transformations for use in certified systems? - How do these optimizations compare to optimization performed by compilers or a certification perspective ? - Issues raised by ML acceleration <b>hardware</b>  <b>Talk: <i>To be completed.</i></b>	15
		DISCUSSION	20
BREAK			10
Subject 4	Determinism, predictibility, reproducibility	<u>Numerical accuracy</u> - Impact of quantization, custom number formats on correctness, stability, and safety margins of ML - What are the source of approximations? - What are the effects of those approximation on the behaviour of the neural network? - Do we have to care about it? - How can we specify those errors? Bound them?  <b>Talk: David DEFOUR, Université de Perpignan</b>	15
		DISCUSSION	20
Subject 5	The Need for Tools	<u>Open source initiatives</u> - Open source ML frameworks / tools that could serve as a basis for trustable implementations?  <b>TALK: The AIDGE initiative, Pierre GAILLARD, CEA</b>	15
		DISCUSSION	20