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M4CAST : an emerging national collaborative effort for IA applications to accelerators physics and technologies

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M4CAST, standing for "Multiphysics Modelling, Machine learning and Model-based Control in Accelerator Sciences and Technologies", is a new collaborative effort gravitating around artificial intelligence applications for accelerator physics and technologies. It intends to bridge accelerators under operation and future projects. It also tries to bring closer various scientific communities. Among them, some mainly concentrate on reliability of existing facilities, others develop the next generation accelerators ; some play with data, others design and build cutting edge beam delivering facilities. Data sharing and common methods take an important part in these developments. This effort is also integrated within a national roadmap and European emerging efforts for IA applications to particles accelerators. This presentation shows the current status of the M4CAST collaboration and the ongoing and planned developments within its frame.

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