Participants: Michele Mastropietro , Ciro Bigongiari , Saverio Lombardi , Francesco Gabriele Saturni , Antonio Stamerra

- CORSIKA optimization: Michele Mastropietro started his activities on the 15th of November. We got in touch with the Karlsruhe group who developed CORSIKA 8 (a beta release is coming in days, **but without the Cherenkov module**), and with the group of Luisa Arrabito in Montpellier: they published a work on CORSIKA 7 profiling and started to work on CORSIKA 8, abandoned the work due to the lack of personnel, now they are starting back. A call with them is scheduled next monday.
- SIMTELARRAY: it is the software that elaborates CORSIKA outputs. It needs optimization, since it runs on a single core. A guy in Palermo, Davide Mollica, has started to build a tool which is a subset of simtelarray, we are planning to see what's going on there and understand if we can use that as a codebase.
- The other activity related to these two softwares is about engineering the required steps to test the configurations and the outputs: translating notebook to scripts, building an automation pipeline, building a small dashboard to analyze results. A first meeting has been done, we are going to write down the requirements in a document, which will become a deliverable for ICSC.
- IDL innovation grant: we are in charge of the blockchain software acquisition and deployment. We are preparing documentation for the public tender. The documentation is HELL, so it's a very slow process. Money isn't yet available to the Observatory of Rome.
- Machine Learning pipeline: this is in *WIP* stage. A multi input/multi output model is currently implemented, not giving the desired results yet. There are many steps involved, I'm writing a wiki page to describe it all, this will also become a possible deliverable for ICSC.
- A PhD student started to work with us at the beginning of November on Machine Learning for the Very High Energy Physics domain.