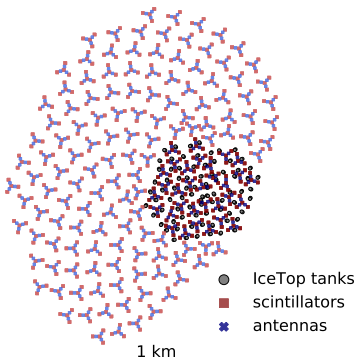


Simulation study for the future IceCube-Gen2 surface array

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- First efforts of a simulation study for the future surface array of IceCube-Gen2.
- We forecast the capabilities and the expected numbers of events we will see using surface and in-ice detectors to quantify its scientific potential.
- The simulations of air showers (particle interactions and radio emission) were performed and processed through the IceCube-Gen2 surface array.
- **The surface array of IceCube-Gen2 will be able to detect cosmic rays in the energy region of PeV to EeV with a good accuracy. A large aperture for the events detectable in coincidence with the in-ice array will allow to us probe the Galactic-to-extragalactic transition.**