Acoustic & Radio EeV Neutrino Detection Activities



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Air-Shower Radio Simulations - where we stand and where we go

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Simulations of the radio emission from extensive air showers have been key in establishing radio detection as a mature and competitive technique. In particular, microscopic Monte Carlo simulations have proven to very accurately describe the emission physics and are at the heart of practically all analysis approaches. Yet with new applications - for example very inclined air showers, cross-media showers, extreme antenna densities, and higher-frequency measurements - come new challenges for accurate and efficient simulations. I will review the state of the art of the existing simulation approaches and discuss where further improvements might be needed and how they can be achieved.

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