

A low-cost wide field-of-view Cherenkov Telescope

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The FAMOUS telescope is a quarter square meter Fluorescence telescope utilizing a Fresnel lens, silicon-based photo sensors (SiPMs) and a state-of-the-art readout system. Due to its compact design, the system is encapsulated in a carbon fiber reinforced plastic tube. This allows the application also in harsh environments. A prototype system (IceACT) is currently installed at South pole and operated successfully as Air-Cherenkov Telescope proving coincident detection with IceTop. Due to its low costs (<10,000 USD), it is ideally suited to cover large areas on the sky or large surface areas or both. Therefore, it might be worth to investigate a possible advantage combining this system with a HAWC type array to improve, for example, energy resolution.

Primary author: Prof. BRETZ, Thomas (RWTH Aachen University)

Presenter: Prof. BRETZ, Thomas (RWTH Aachen University)

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