

SIZE OF OPTICAL IMAGE OF AN AIR SHOWER

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Distribution of photons which form a shower image is simulated. Using a realistic distribution of particles in the shower, and taking atmospheric scattering of light into account, one obtains a distribution of photons which were emitted at the shower front and arrive simultaneously to the eye. These photons form an instantaneous image of the shower, although they originate from a range of shower development stages. The angular size of this image is studied and compared with a detector pixel size.