

PROPERTIES OF EAS GONIOMETER HEPI

All definitions of the values and functions used see in the part «GONIOMETER'S GENERIC PROPERTIES»
 The HEPI goniometer is under construction now
 High Energy Physics Institute under Tbilisi State University, Tbilisi, Georgia



Location of the HEPI installation

Latitude	41.717096°N
Longitude	44.711565°E
Altitude	(530 ± 5) m above sea level
Upright atmospheric mass depth	$X_{\text{HEPI}}^{\uparrow} = ??? \text{ g/cm}^2$
Air density at this location	$\rho_{\text{HEPI}} = ??? \text{ g/m}^3$
and the corresponding multiple scattering unit	$rM_{\text{HEPI}} = ?? \text{ m}$

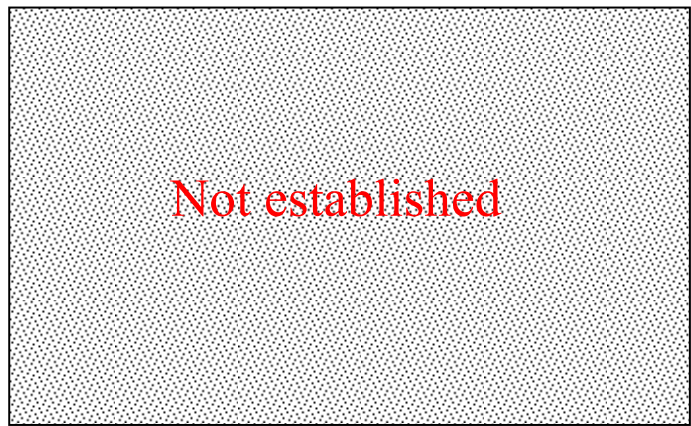


Figure 1 HEPI array layout.
 All linear dimensions are measured in centimeters.

The “flat” detectors of HEPI goniometer are located under the concrete roof of the building of High Energy Physics Institute in Tbilisi. The mass depth of this filter is accepted to be $X_{\text{filter}} = 30.8 \text{ g/cm}^2$ for all directions and the radiation length for the actual absorber's substance is accepted to be $T_{\text{filter}} = 27.5 \text{ g/cm}^2$

Number of detectors $N = 4$; $d = 0, 1, 2, 3$

The areas of all plastic scintillator slabs are $S_d = 0.25 \text{ m}^2$; $\{SS_{\text{AIP}}\} = (S_0, S_1, S_2, S_3)$

The detectors' positions layout in the roof space is shown in the **figure 1**.

HEPI goniometer's properties have to be evaluated later.