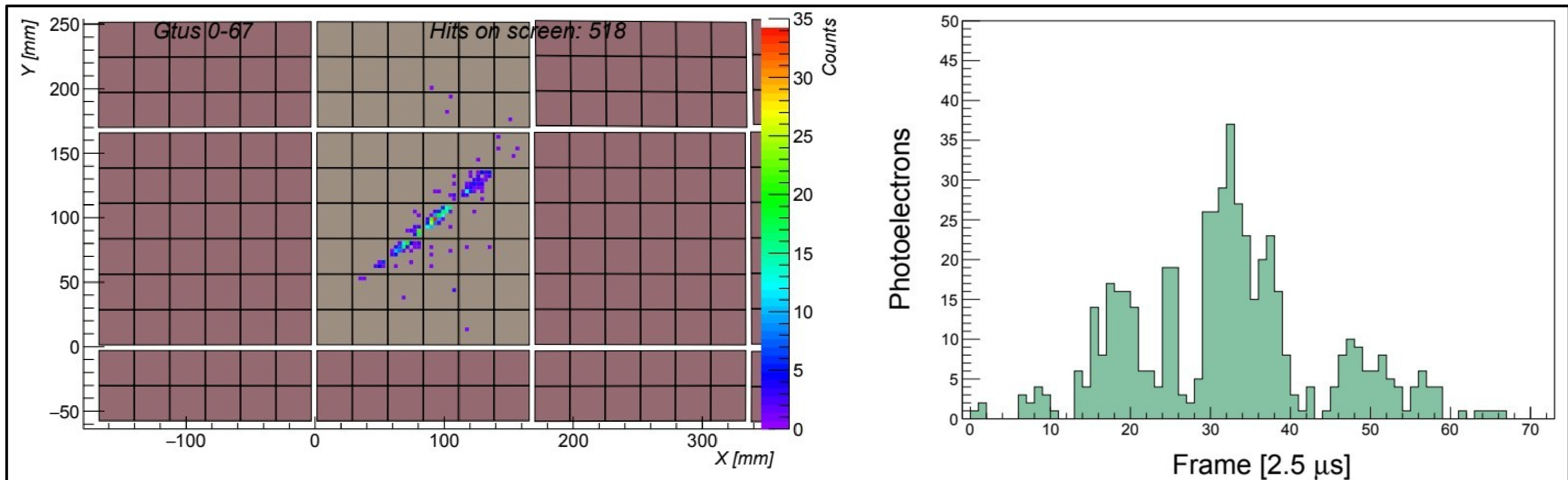


Expected performance of the K-EUSO space based observatory

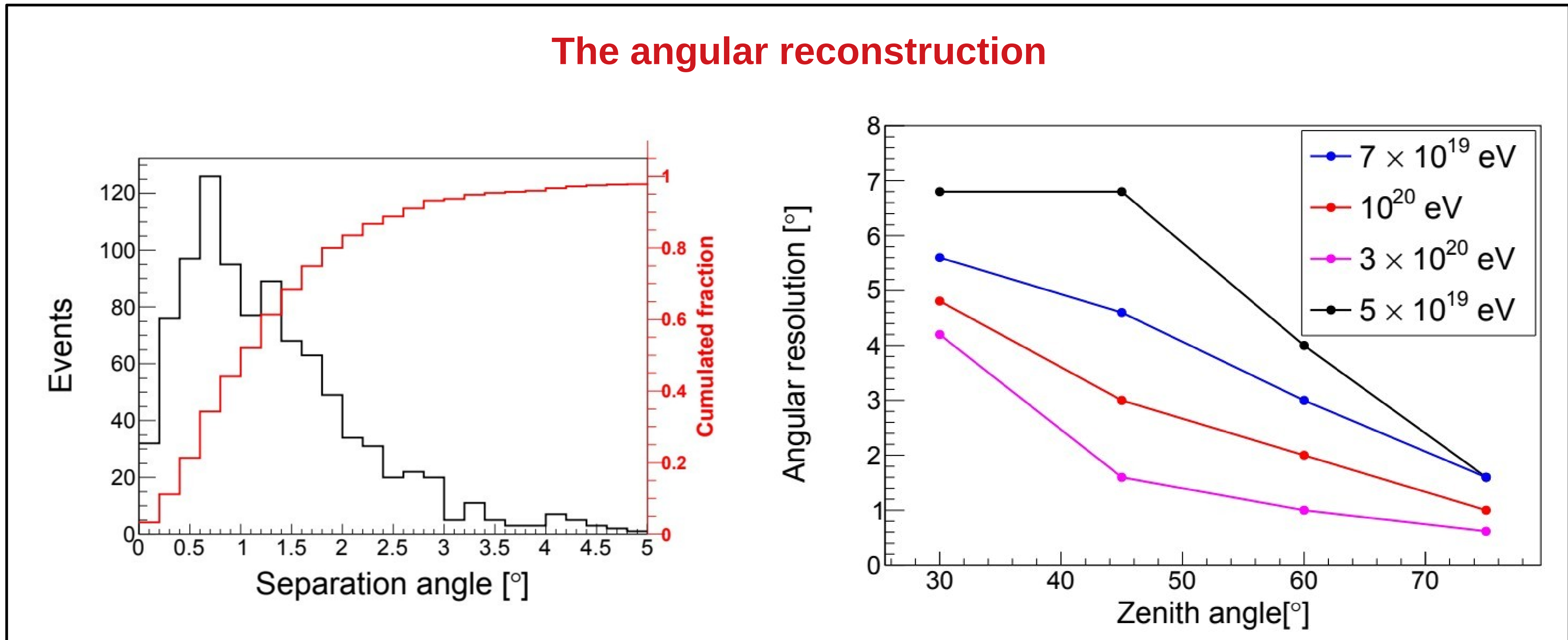
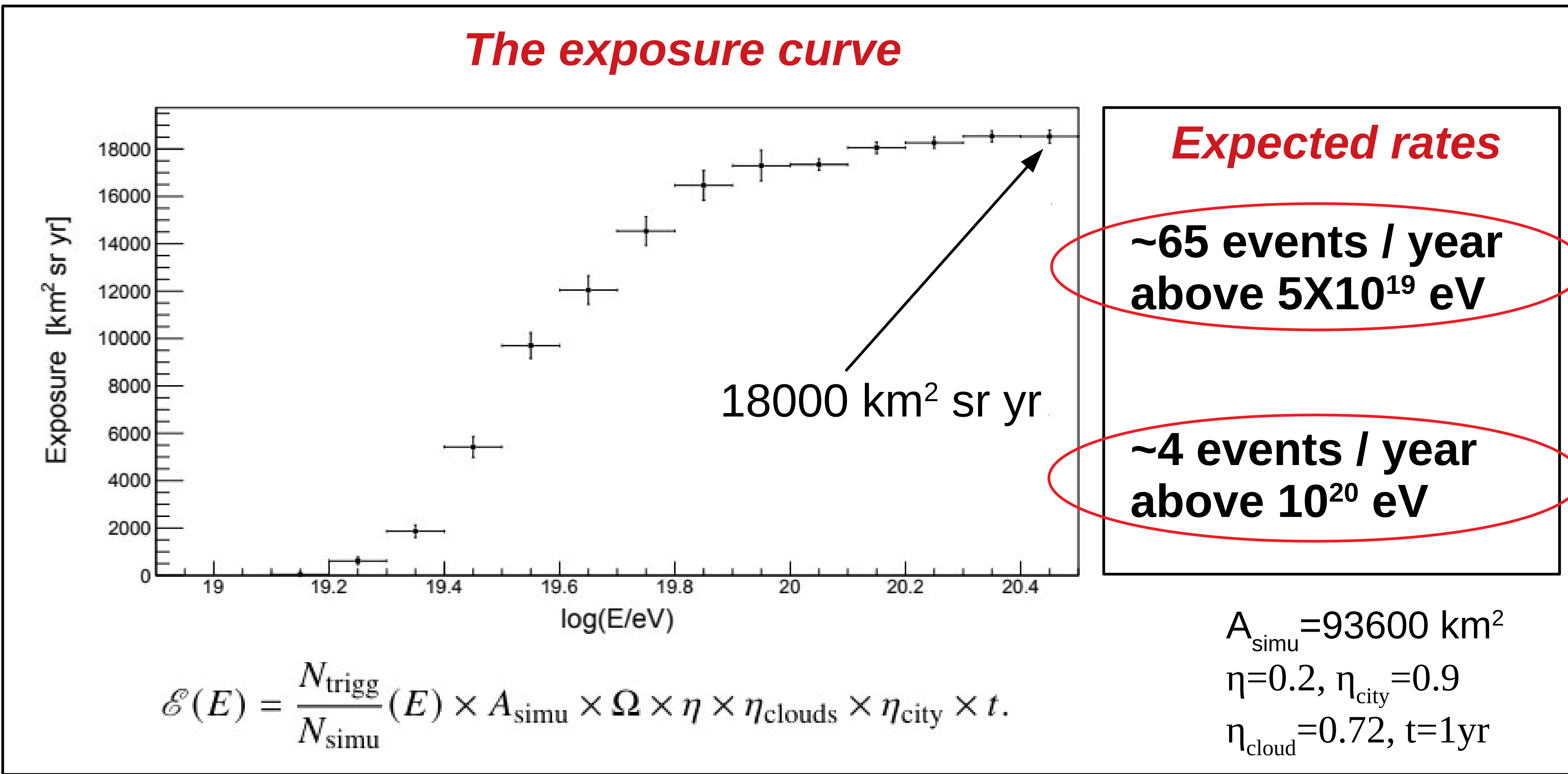
F. Fenu*, S. Sharakin, M. Zotov, N. Sakaki, Y. Takizawa, M. Bianciotto, P. Klimov, M. Bertaina and M. Casolino for the JEM-EUSO collaboration

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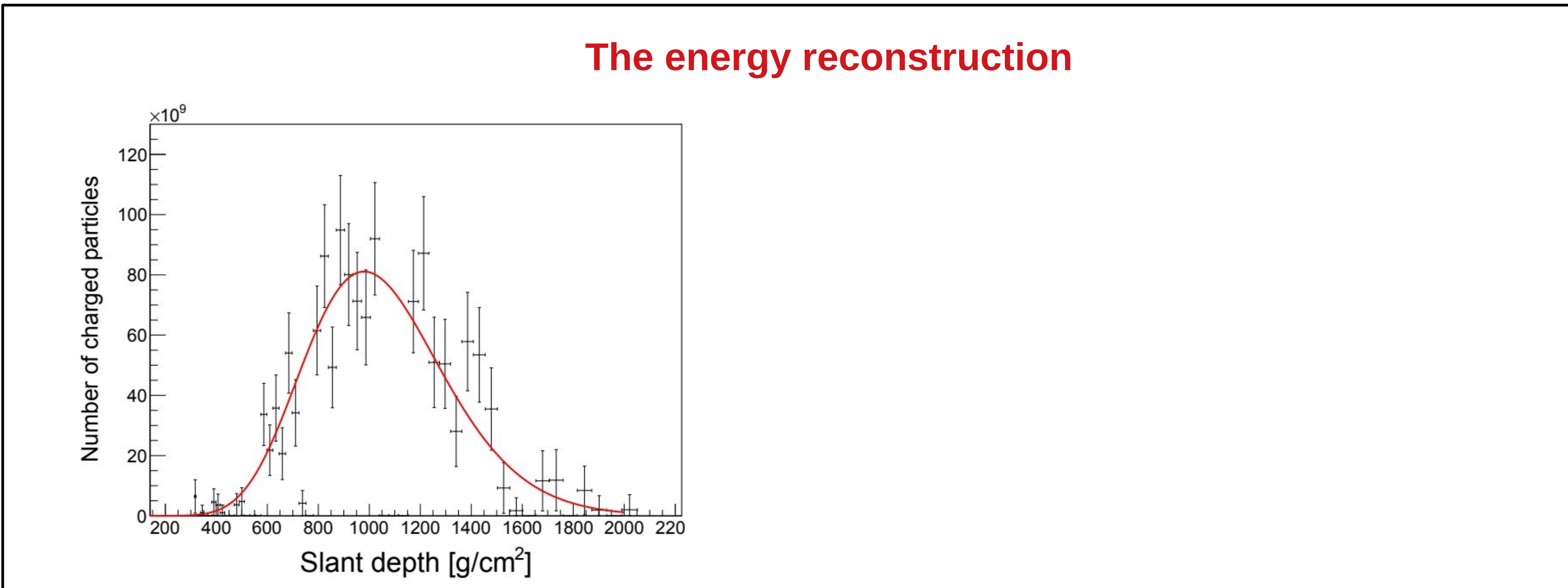
Simulations of EAS to test the expected performance of the K-EUSO observatory
ESAF simulation software

- 400 km orbit
- 90X130 km² FOV
- 1 pixel 0.1°~700 m on ground
- Hamamatsu R11265-103-M64
- 1.4X2.2 m² optics
- 1.3X1 m² FS



Reconstruction of the angle through fit on position and timing of the signal
Comparison of timing and position of signal with test shower

Resolution: angle within which 68% of the events fall
4-7° (low zenith angle)
1-2° (high zenith angle)



Reconstruction of the shower profile
Fit of the profile to obtain:
→ Energy
→ X_{max}

Calculate the standard deviation of the ratio
 $(E_{reco} - E_{real}) / E_{real}$
~25% (low zenith angle)
~15% (high zenith angle)