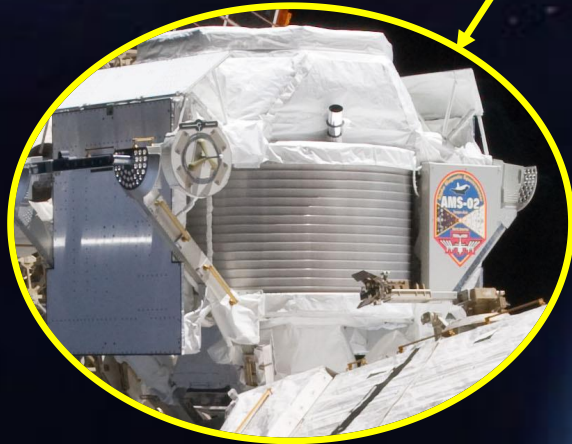
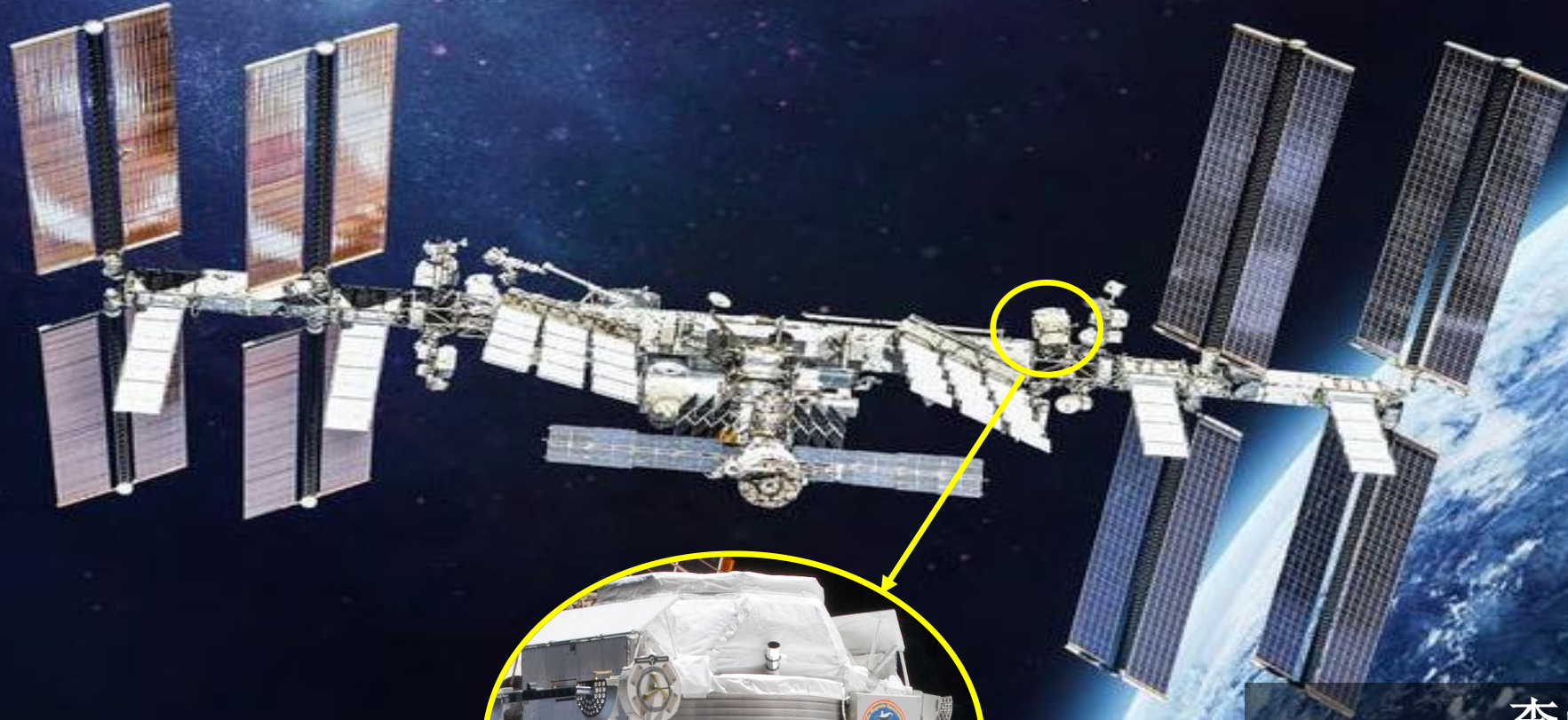


Understanding the Origins of Cosmic-Ray Electrons



李尚霖 / IHEP

on behave of AMS collaboration

中国物理学会高能物理分会第十二届全国会员代表大会暨学术年会

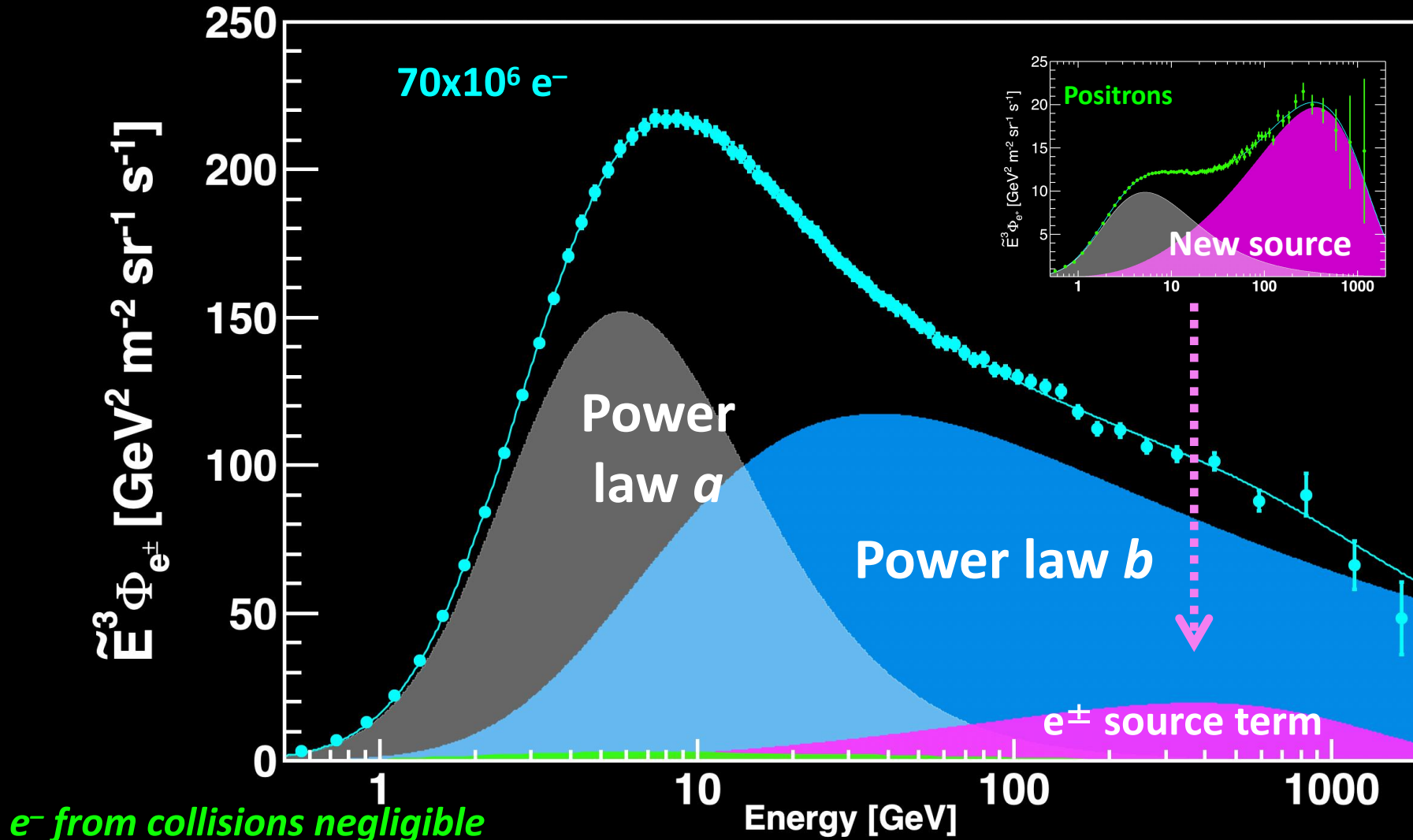
Physics of Dark Matter: AMS Result on the electron spectrum

The spectrum fits well with two power laws (a , b) and the measured positron source term

Empirical model:
 $\chi^2/\text{dof} = 42/67$

$$\Phi_{e^-}(E) = \frac{E^2}{\widehat{E}^2} (C_a \widehat{E}^{\gamma_a} + C_b \widehat{E}^{\gamma_b} + \text{Positron Source Term})$$

Solar Power law a Power law b



New sources,
like Dark Matter or
Pulsars,
produce equal
amounts of e^+ and e^-

2.7σ
 4σ in 2030