

1135-44-2099 **Fatma Terzioglu*** (fatma@math.tamu.edu), **Peter Kuchment** and **Leonid Kunyansky**
(leonk@math.arizona.edu). *Mathematics of Compton camera imaging.*

Compton cameras are used for medical (emission) imaging, as well as for astronomy and homeland security applications. Mathematically (although not in terms of the underlying physics) similar neutron detectors are also being developed for homeland security. The talk will survey the mathematics related to such applications. Namely, the so called cone transform, its properties and inversion. (Received September 26, 2017)