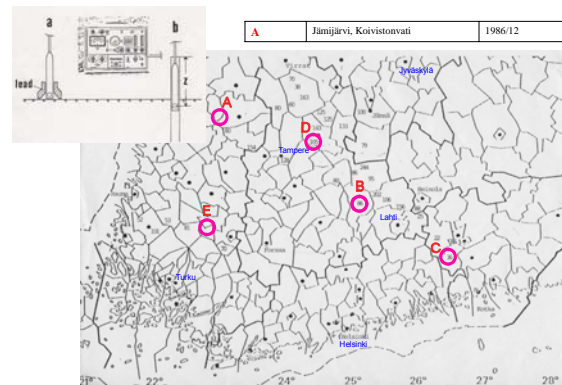
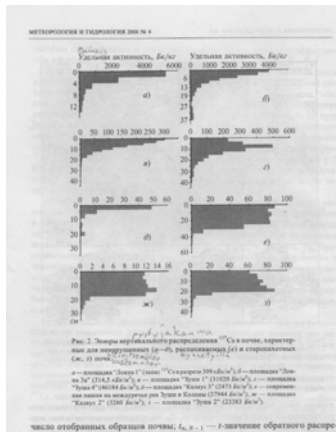
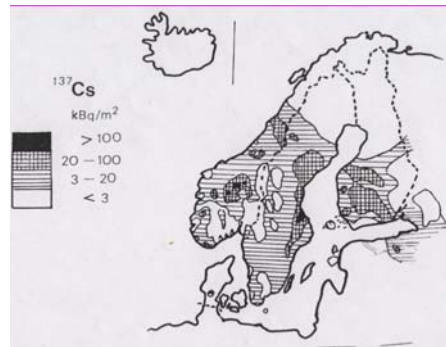
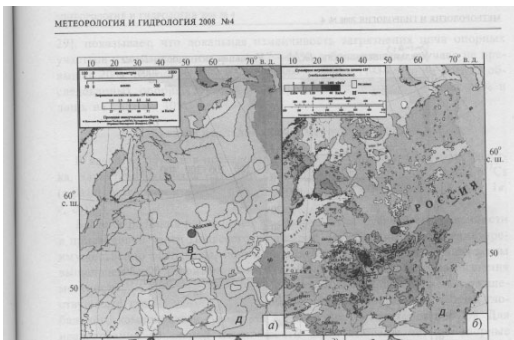
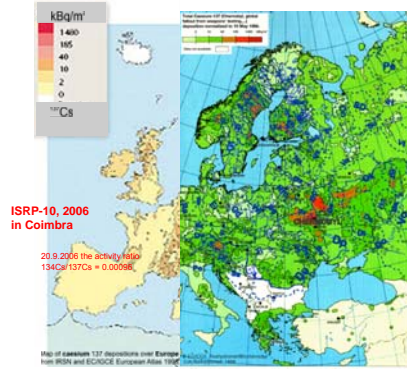
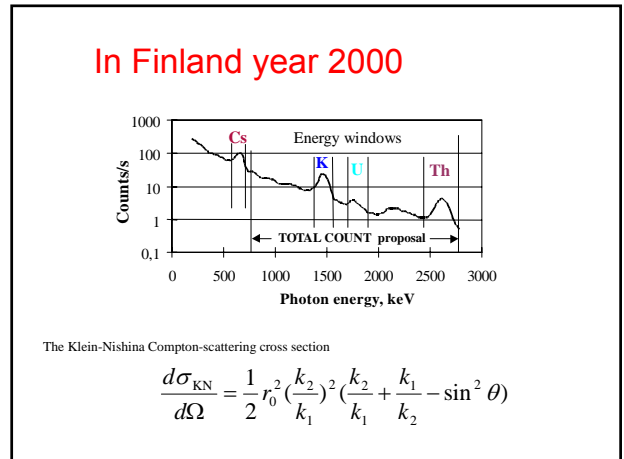
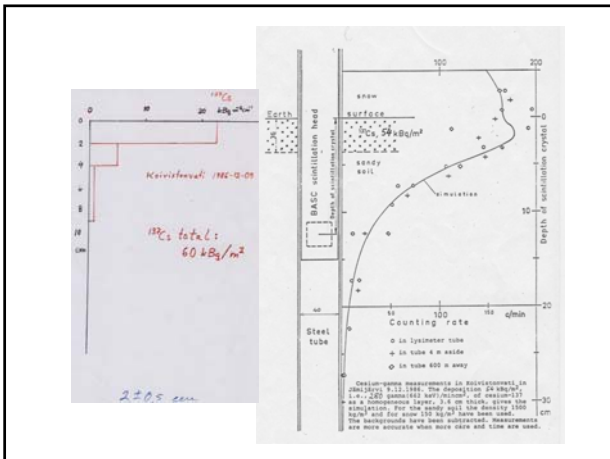
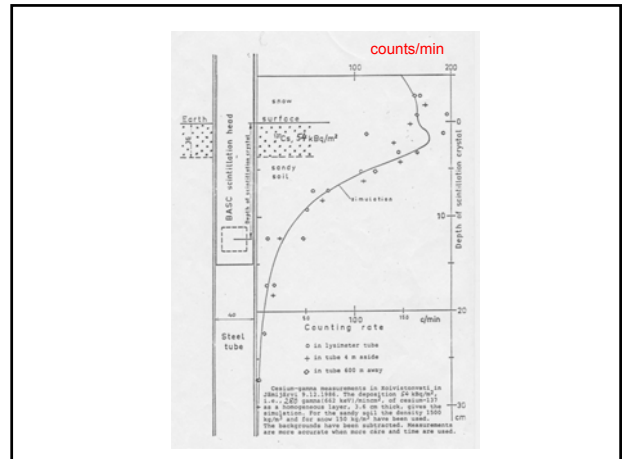
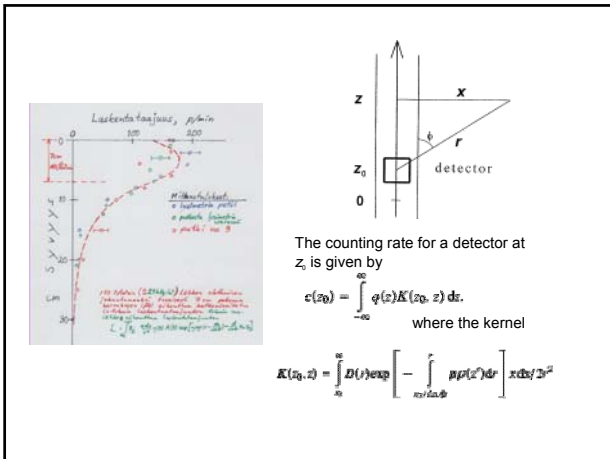


NSFS meeting in Ålesund 26-30 of May 2008

### Nondestructive Determination of Gamma-Active Nuclide Profiles in Soil

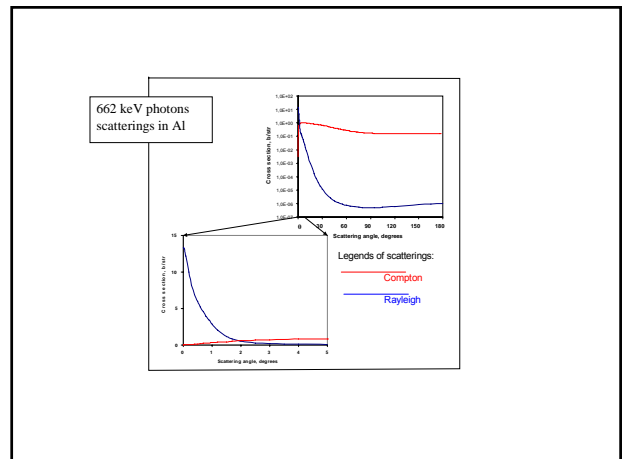
Servo KASI      Onsdag 28.5. kl. 8.50-9.10  
Helsinki Universitat



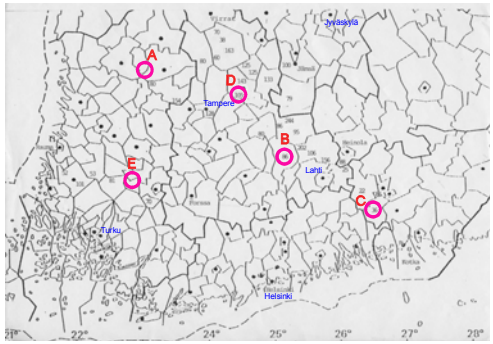


### Why the gamma peaks are so symmetric ?

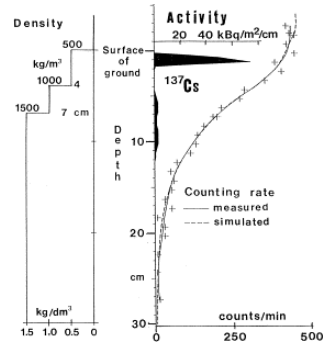
- $\frac{d\sigma_C}{d\Omega} = \frac{d\sigma_{KN}}{d\Omega} S(x, Z)$       $x = \sin(\theta/2) / \lambda$ ,
- $S \in [0, 1]$       $S(0, Z) = 0$
- for each element  $Z$  — even for metals.



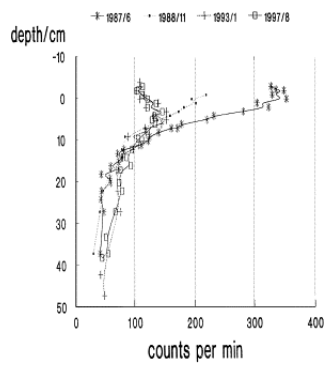
B Lammi, Tullinkangas 1987-



The  $^{137}\text{Cs}$  profile determined from the year 1987 counting rate profile



• Evidence of cesium profile stabilization in a mineral soil.



in Lammi, Tullinkangas

