



Presented at NDE2002, to predict. assure. improve. [www.nde2002.org](http://www.nde2002.org)  
National Seminar of ISNT, the Indian Society for Non Destructive Testing  
Hotel Taj Connemara and Raja Muthiah Hall, Chennai, 05. – 07. 12. 2002

## **Allocation of Borders of Objects and Definition of the Sizes Imperfections in Compton Tomographies**

**Varga V. V., Kapranov B. I., Baumbach H., Chahlov V. L.  
Maklashevskij V. A., Filinov V.N.**

Introscopy Institute of Tomsk Polytechnical University, 634028, Tomsk, Russia  
E-mail: [chakhlov@introscop.tomsk.su](mailto:chakhlov@introscop.tomsk.su)

### **Abstract**

At the control over the help of back - absent-minded radiation the information on the linear sizes heterogeneity contains in functional dependence of change of number of quanta in detector  $N_s$  at change of position of the disseminating volume  $V$  concerning heterogeneity on a direction of scanning.

In article the behavior of scanning function  $N_s(z)$  on one direction  $z$  is investigated provided that the quantity of quanta in the detector is unequivocally defined {determined} by the size of the disseminating volume (DV) last in heterogeneity. The function changing only at transition through border of heterogeneity is formulated, influence of easing of primary and absent-minded beams by the previous layers, and also deformation of aperture function of the disseminating volume is investigated due to easing in itself DV.