1) Hello, my fellow workers. Today I am going to talk about Article abstracting which is Optimal Energy Thresholds and Weights for Separating Materials Using Photon Counting X-Ray Detectors with  
Energy Discriminating Capabilities have been written by Adam S. Wangand Norbert J. Pelc from Departement of Electrical Engineering, Stanford University, Stanford, California

2) My talk will be in five parts and will take five minutes. Now let’s move to introduction part

3) It is well known that decomposing an object into attenuation or material basis functions provides additional imaging benefits such as contrast enhancement or material subtraction. This can be accomplished with photon counting x-ray detectors (PCXDs) with energy discriminating capabilities, which enable us to count x-ray photons and classify them based on their energies. The richness of the information contained in these measurements can depend heavily on how these photons are binned together.

So, the goal of this paper is to identify a method that yields the optimal energy thresholds and weights for binning data from energy discriminating PCXDs.

Now, let’s move to the 2nd part of my talk which is Low dose Digital Radiographic Installation (called Siberia).

4) First, I want to tell you bit historical information.

Radiographic installation "Siberia" has been developed, modernized and produced in BINP over the years. The registration of x-ray quanta in this installation is performed via a multiwire proportional chamber. Application of the new radiation detector enabled to improve the spatial resolution of more than 1.5 times, while maintaining the contrast sensitivity and patient dose. In addition, it has allowed one to increase speed, dynamic range, having made the radiation detector more technological in manufacture, simple and reliable in operation. This installation has some awards

5) Another installation called “Sibscan” is X-ray inspection system developed in BINP many years ago.

This installation has the same principle of operation but is used for screening people to detect hidden on the body and clothing the dangerous items, weapon and explosive. The main feature of Sibscan is ultra-Low dose of X-ray irradiation comparable to the background. This installation is used in airports, at the customs and other places where inspection is necessary.

6) But progress does not stand still. The detectors characteristics have been improved significantly in the world and we can use other types of detectors now. New detectors will allow us to achieve the best image quality, thus we work hard in order to do this.

7) To sum up, I have told you about our laboratory staff, about two X-ray installations that were developed many years ago and, finally, about our current work.

8) That is all, thank you for your attention!