



**5-th Gamow Memorial International Conference  
dedicated to 111-th anniversary of George Gamow**

**ASTROPHYSICS AND COSMOLOGY AFTER GAMOW:  
PROGRESS AND PERSPECTIVES**

and

**15-th Odessa International Astronomical Gamow Conference-School  
ASTRONOMY AND BEYOND: ASTROPHYSICS,  
COSMOLOGY, COSMOMICROPHYSICS, ASTROPARTICLE  
PHYSICS, RADIOASTRONOMY AND ASTROBIOLOGY**



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**PROGRAM AND ABSTRACTS**

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**COMPARISON OF ZERO ZONE CATALOGS OF  
THE FON PROGRAM BASED ON THE KYIV AND  
KITAB OBSERVATIONS**

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The two new catalogs for a zero zone of the FON program were created after processing of two different collections of the digitized astroplates. The plates have been received at the DAZ and DWA telescopes of the Kitab observatory of the Republic of Uzbekistan and of the Main astronomical observatory in Kyiv in number of 90 and 120 examples, respectively. Digitization of astroplates in frame of the Ukrainian Virtual Observatory project was conducted by means of the Epson Expression 10000XL scanner with scanning resolution 1200 dpi. Coordinates of stars and galaxies for the both catalogs are determined in the Tycho-2 catalog system and B-magnitudes in photo-electric standard system. Convergence between the calculated and reference positions is equal  $\sigma_{\alpha\delta} = \pm 0.06-0.07''$ . Internal accuracy of catalogs for all the objects is  $\sigma_{\alpha\delta} = \pm 0.20''$ ,  $\sigma_B = \pm 0.18^m$  and  $\sigma_{\alpha\delta} = \pm 0.27''$ ,  $\sigma_B = \pm 0.17^m$ , respectively. We discuss results and provide a comparison of these catalogs both each other and with the UCAC-4 catalog.