INVESTIGATION OF INTERACTION BETWEEN SUPERNOVA REMNANTS AND INTERSTELLAR MEDIUM

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During 1999-2006 the second stage of investigation of HI distribution around supernova remnants (SNRs) was carried out with the RATAN-600 radio telescope. In contrast to a previous stage during 1985-87 now SNR of large angular dimension (greater than $10'$) and specific type – S (shell) were selected, independently from their radio brightness. It is obvious that namely such objects have sufficiently large ages for demonstrating a evidence of interaction between their shock waves and surrounding neutral gas. Such a evidence could be detected in the "Right Ascension – Velocity" $(\alpha - V)$ maps as ring like structures, whose parameters may bring information about sizes, ages and energy of supernova explosion.

Now we have observed about 130 SNRs and 105 $\alpha - V$ maps are plotted. Some interesting objects (such as S147, Cygnus Loop, HB3) were studied in detail and results were published separately. Soon all $\alpha - V$ maps will be available at our web-site.