

## UPDATED $\Sigma - D$ RELATIONS AND MAIN RADIO LOOPS AS SUPERNOVA REMNANTS

*D. Urosevic*

Department of Astronomy, Faculty of Mathematics,  
University of Belgrade  
(*Studentski trg 16, 11000 Belgrade, Yugoslavia;*  
*e-mail: dejanu@matf.bg.ac.yu*)

Updated  $\Sigma - D$  relations (relations between the surface brightness ( $\Sigma$ ) and the diameter ( $D$ )) for supernova remnants (SNRs) were used for investigation of the origin of the main galactic radio loops (Loop I, II, III, IV). In this paper, test results affirm the SNR hypothesis of the radio loops origin. With loop affixation, the updated  $\Sigma - D$  relations become more complete in comparison with the original relations and they result by flatter slopes -  $\beta \approx 2$ .