

Feedback-driven superbubbles and triggered star formation in nearby dwarf galaxies

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We present the results of the ongoing survey at the 6-m telescope of SAO RAS aimed to analyse the gas morphology, kinematics and ionization state in the nearby dwarf galaxies. A proximity of such galaxies, a thickness of their gaseous disks and a lack of spiral density waves allow one to study in details the feedback from massive stars regulating the ISM. We performed the observations with a scanning Fabry-Perot interferometer with high spectral (20 km/s) and spatial (20-50 pc) resolutions. We identified and analyzed several tens of the ionized superbubbles; certain signs of propagating star formation were found. We argue that at least in several galaxies the collision of the giant kpc-sized supershells plays important role in the triggering of a new burst of star formation. A multi-component emission line profiles are observed in many of star-forming regions and most probably related to the influence of stellar winds and supernovae. At the same time a complex kinematics of the ionized gas is also observed far from the young star clusters that points to the importance of the energy leakage and shock waves propagation as a driver of turbulence of the ISM, in particular - in the diffuse ionized gas.