Star formation feedback in dwarf galaxies tracked by 3D spectroscopy with Fabry-Perot interferometers

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Compared to the popular integral-field spectrographs, the Fabry-Perot interferometer (FPI) provides a unique combination of a large field of view, high spectral resolution, and detailed image sampling that are important to study the ionized interstellar medium in galaxies including the diffuse ionized gas. I briefly review recent results obtained by our team in studying nearby star-forming dwarf galaxies taken with the FPI at the 6-m SAO RAS telescope. Different methods of detection of wind-blown expanding shells and shock fronts related with stellar feedback processes are discussed: the velocity dispersion maps, the 'intensity-velocity dispersion', and the 'BPT-sigma' diagrams. First results of studying the ionized gas properties using the low-resolution (tunable-filter) FPI at the 1-m SAO RAS telescope and 2.5-m SAI MSU telescope are also considered.