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METALLICITY AND SMALL-SCALE KINEMATICS IN LOCAL STARFORMING GALAXY

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We present new panoramic data of a spectacular collisional system Arp118 comprising of a distorted disk galaxy NGC 1144 and an elliptical galaxy NGC 1143. Using observations at the 2.5-m Moscow State University telescope we have mapped the line-of-sight velocity and brightness distribution fields for the Hα and [NII] emission lines. These images reveal, for the first time, the extended emission knots and filaments around the central galaxies of the system – an ionized gas envelope. It extends up to 22 kpc in projection from the NGC 1144 active nucleus. Using SDSS data, we have studied the surroundings of merging galaxies NGC 1143/1144 and have found 10 galaxies inside 400 kpc projected radius, whose measured spectral redshifts coincide with the central galaxies NGC 1143/1144 within the radial velocities of 500 km/s. Thus, Arp 118 can be considered as a group of galaxies in the process of merging its two most massive members.