The central star of Sharpless 2-188 is 850 light years away and it is travelling at 125 kilometres per second across the sky. Observations show a strong brightening in the direction in which the star is moving and faint material stretching away in the opposite direction. The astronomers believe that the bright structures in the arc observed ahead of Sharpless 2-188 are the bowshock instabilities revealed in the simulations, which will form whirlpools as they spiral past the star downstream to the tail. This image was obtained as part of the INT/WFC Photometric Hydrogen-Alpha Survey of the Northern Galactic Plane (IPHAS).

Credit: Nick Wright and the IPHAS collaboration.