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New candidate Planetary Nebulae in the IPHAS survey: the case of PNe with ISM interaction

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We present the results of the search for candidate Planetary Nebulae interacting with the interstellar medium (PN-ISM) in the framework of the INT Photometric H α Survey (IPHAS) and located in the right ascension range 18h-20h. The detection capability of this new Northern survey, in terms of depth and imaging resolution, has allowed us to overcome the detection problem generally associated to the low surface brightness inherent to PNe-ISM. We discuss the detection of 21 IPHAS PN-ISM candidates. Thus, different stages of interaction were observed, implying various morphologies i.e. from the unaffected to totally disrupted shapes. The majority of the sources belong to the so-called WZO2 stage which main characteristic is a brightening of the nebula's shell in the direction of motion. The new findings are encouraging as they would be a first step into the reduction of the scarcity of observational data and they would provide new insights into the physical processes occurring in the rather evolved PNe.

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