

# Optical and X-ray emission from PSR 0540–69.3 and its pulsar-wind nebula

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HST/WFPC2 has observed PSR 0540–69.3 and its pulsar-wind nebula (PWN) on several occasions. In particular, the most recent data are contaminated by Charge Transfer Efficiency (CTE) problems, which can lead to high uncertainties in flux and proper motion estimates. We have used a wavelet filtering analysis of the images to reconstruct the structure of the PWN. This reveals that the structure shows remarkable time variability. The same is seen in X-rays after correction for the data pile-up effect. Different physical scenarios to explain these results are discussed.