

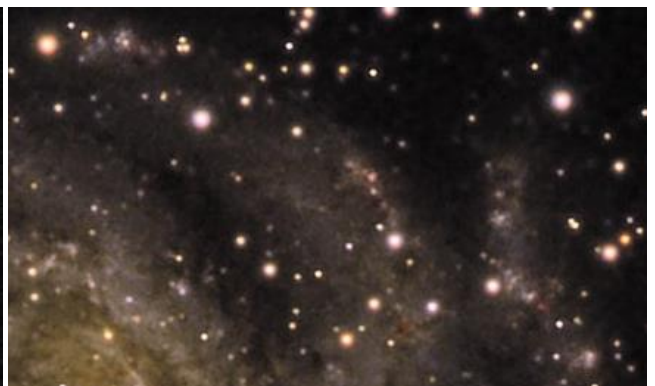
Fireworks Galaxy Supernova Update and modifying my Nikon D5300 camera



In 2017 Supernova SN 2017eaw was big and bright when I imaged the Fireworks Galaxy on July 28th. I took 36 photos at ISO1600. Each photo was a 300 second exposure which meant that this photo represents 180 minutes total integration time. When this image was taken, my Nikon D5300 was a stock camera. Over the 2017/2018 winter I had my camera Hydrogen Alpha modified by a company called Kolari Vision. This modification requires the company to dismantle the camera and replace the UV/IR filter glass on the imaging chip with a specially modified glass that has a 4 fold increase in H-alpha sensitivity and a 6 fold increase in sulphur II sensitivity.



During July, 2018 I imaged the Fireworks Galaxy again. This time I took 35 photos at ISO800. Each photo was a 240 second exposure for a total integration time of 140 minutes. Now, one year later, Supernova SN 2017eaw has faded into obscurity. My 2018 Fireworks Galaxy image has more details in the galaxy's arms. Some details are totally missing in my 2017 version.



Here are two close-ups. The grey arrow points to Supernova SN 2017eaw as seen in July 2017. In the July 2018 image, the Supernova has faded away. You can also see some of the details in the galaxy's

arms that are now visible in spite of the fact that the 2018 image has significantly less total integration time. Not a bad result for a Galaxy that is location 22.5 million light years away from us.

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