



## Issue No 18

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# NEWSLETTER

This week we learned about Astrophotography! We were delighted to welcome guest speaker Dr. Ray Butler from the School of Physics, NUI Galway. Ray presented a talk about Astrophotography.

Dr. Ray Butler is a lecturer of Physics and Astronomy at NUI Galway. Ray has a huge interest in night sky quality and is studying the darkness of the night sky in different locations throughout Ireland. Nowadays tourism gets a huge boost from certification of dark sky quality, for example in Kerry and Mayo. Ray

finds it fascinating to see where the darkest locations are found and to encourage amateurs astronomers and budding astronomers to go and visit them both with their families, friends, schools and other groups.

We learned how astronomers and photographers record photos of astronomical objects, celestial events, and areas of the night sky. After the presentation, Finbar McHugh gave us the opportunity to make our own photography and experimented with light.



**ASTROPHOTOGRAPHY  
IN PARTNERSHIP WITH  
SCHOOL OF PHYSICS, NUI  
GALWAY**





Ray began by explaining the five regimes of exposure and technique. He said that for the most part, astrophotography divides into two styles. There is long exposure shots, showing stars streaking across the sky in a dizzying array of circles. Then you have short exposure shots, which is your more traditional glamour photos of the Milky Way.

We can also use a longer lens depending on how much of the Milky Way and the surrounding scene we want to capture. We learned that a longer focal length will create star trails in only a few seconds instead of keeping the stars focused in the photo.



Ray told us that there is software, other than Photoshop and Lightroom that are custom-made for astrophotography. He

told us about Hugin, which is a panorama photo stitcher.

We were amazed by Ray's awe-inspiring shots of the night sky and the Milky Way. We also learned how to take star trail photos.

As the earth rotates on its axis, stars change position, so opening the camera shutter for a long time with the North Star (Polaris) visible in your composition will put it at the center of a giant swirl of stars. The longer the total exposure time, the further around the sky the stars will create a light streak.



Dr. Ray Butler with the Grubb Telescope in the South Dome at Dunsink Observatory.  
(Credit: Qi Qi Kennedy)

Thank you Ray for the great presentation We certainly appreciated your background of Astronomy. Your enthusiasm was great & you did an excellent job of educating us about the beauty of the night sky!



After Ray's presentation, Finbar gave us the chance to create our own amazing photography using a Light Painting Photography technique. This technique is the art form of using handheld lights to paint and/or draw in a scene while the shutter of a camera is left open during a long exposure photograph. By shooting in a dark location and using photographic technique of LONG exposure photography (let's say a 30 second exposure) the flashes, streaks, colors, textures, and trails of light created by our light painting tools and modifiers can be captured in a photograph without the use of any postproduction.

