

Interview with Gerald de Beer
nPAE World Champion Astro Photographer 2023



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PRECISION ASTRO ENGINEERING

To celebrate winning the nPAE World Champion Astro Photographer 2023 award we are pleased to present this exclusive interview with Gerald de Beer!

After winning the Southern Hemisphere title, his M17 image was voted the best in a head-to-head vote against the Northern Hemisphere winner and the previous nPAE World Champion, in nail-biting social media public vote.

Here in his own words, Gerald tells us about his own journey and experiences in astrophotography. This is the story from supermarket refractor to World Champion!



nPAE – Hi Gerald, thanks so much for taking part in this interview!

Gerald – Thank you for asking me to take part!

nPAE – When did you start photographing the night sky?

Gerald – I have always had a passion for photography which started with processing black and white negative film from my school days. This grew into nature photography years later. Digital imaging opened a whole new world for me. I have also enjoyed underwater scuba photography. During 2015 I stayed at a dark sky resort in Namibia where there was a resident astronomer. I was fascinated by those amazing skies. Initially I bought a cheap supermarket refractor and after a short while gave up in frustration. During 2018 I bought a Celestron Astro Fi 130mm Newtonian reflector. I quickly realised that eye-piece astronomy was not for me and that I preferred to take pictures and started with my cellphone and an adapter.

nPAE – What is your favourite astronomical object and why?

Gerald – Gosh, that is difficult to answer. I can start by saying that I do not enjoy planetary photography and prefer to image subjects that we cannot see visually. I am in the southern hemisphere and prefer DSO subjects which have a balance of OIII and Ha emissions. As a broad category I'd say lesser-known emission nebula however as a single favourite the Flame and Horsehead Nebula are spectacular.



Horsehead and Flame Nebula

Gerald de Beer

nPAE – Where do you like to observe / photograph the most, what is good about this place?

Gerald - I am fortunate to stay in a smaller town in South Africa and we have a bortle level of approximately 4.5. To this point all my astrophotography, other that 3 subjects taken at a dark sky area last year, have been taken from my home garden. It is ideal as I can control everything via my PC inside my home with a USB3 active cable connection to the rig outside.

nPAE – With what equipment do you photograph?

Gerald – My current setup is the result of the last 5 years of slow upgrades as my photographic abilities grew.

Telescope: Astro-Tech 127EDT Triplet Refractor

Mount: Skywatcher EQ6-R Pro on a permanent steel pier.

Guiding: Orion 60mm guide scope; ZWO ASI290MM mini mono guide camera

Focuser: Sesto Senso 2 Robotic Focuser

Imaging: ZWO ASI2600MM Pro Cooled and a ZWO ASI294MM Pro Cooled

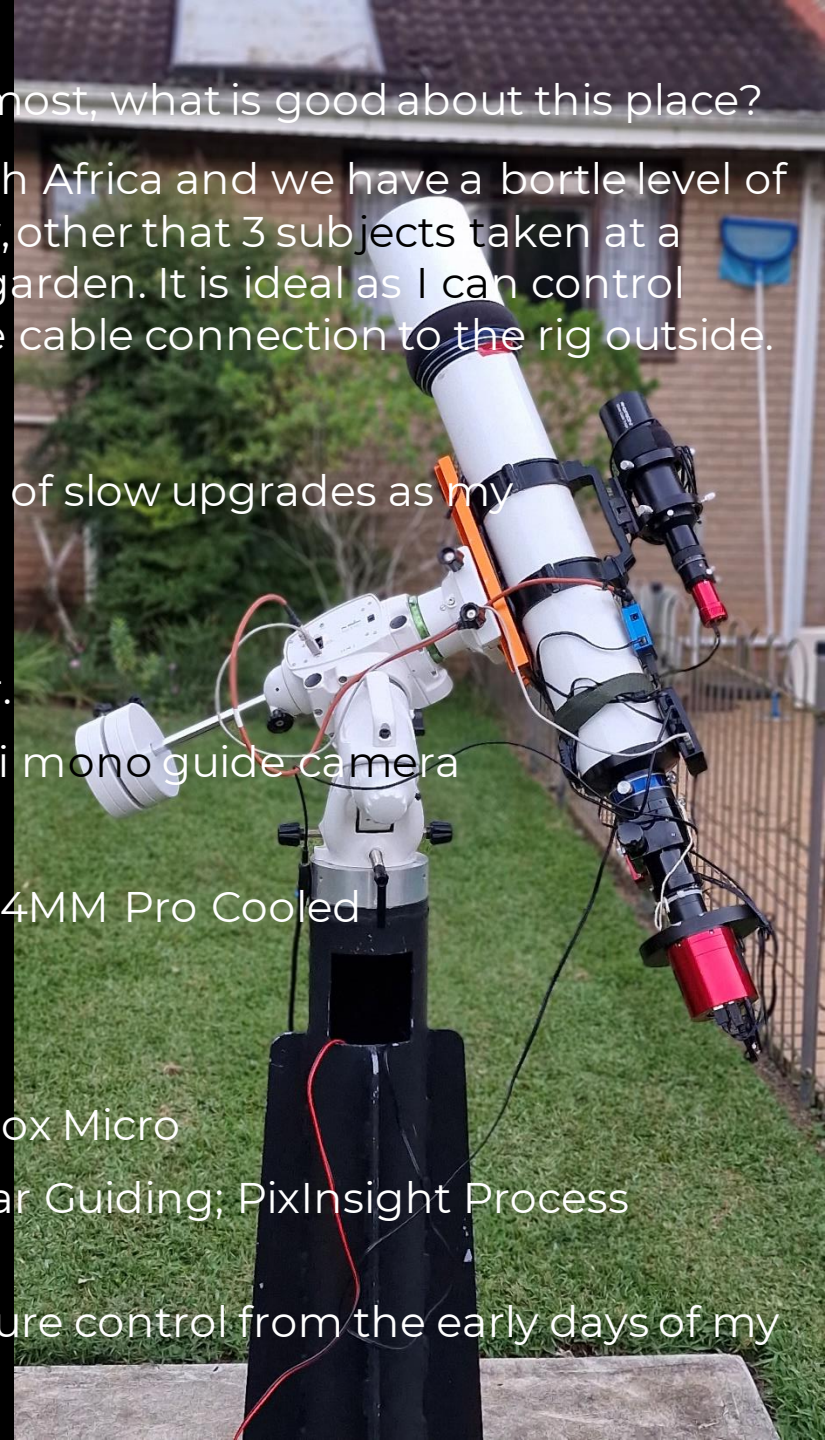
Filters: ZWO NB and LRGB in a ZWO EFW

Dew Control: 2 x Astrozap Dew Heater Bands

Power and Dew Heater Control: Pegasus Pocket Powerbox Micro

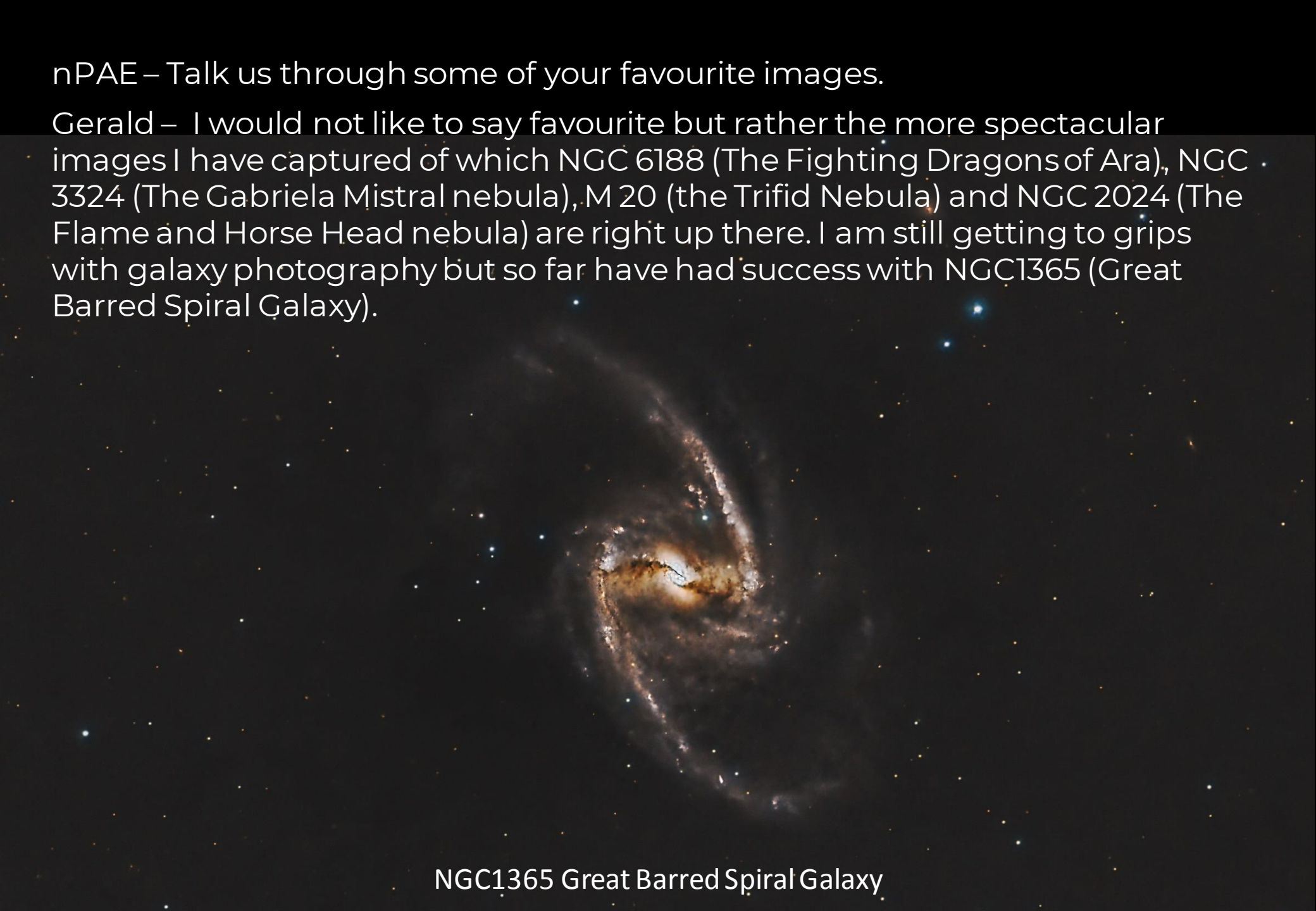
Software: N.I.N.A. Image Capture Software; PHD2 Multistar Guiding; PixInsight Process Software

While we are on this subject, I have used N.I.N.A. for capture control from the early days of my astrophotography. I cannot rate it highly enough.

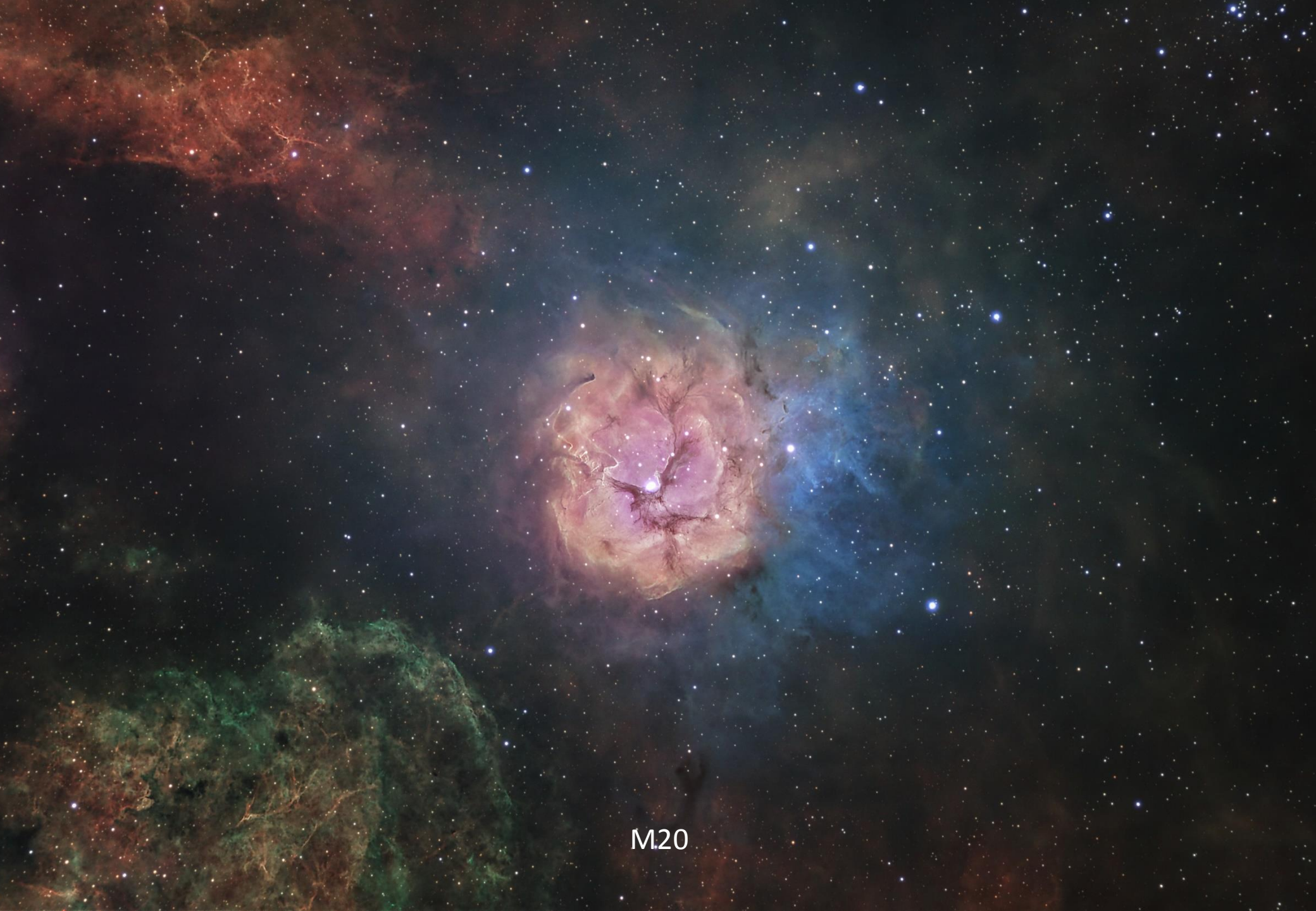


nPAE – Talk us through some of your favourite images.

Gerald – I would not like to say favourite but rather the more spectacular images I have captured of which NGC 6188 (The Fighting Dragons of Ara), NGC 3324 (The Gabriela Mistral nebula), M 20 (the Trifid Nebula) and NGC 2024 (The Flame and Horse Head nebula) are right up there. I am still getting to grips with galaxy photography but so far have had success with NGC1365 (Great Barred Spiral Galaxy).



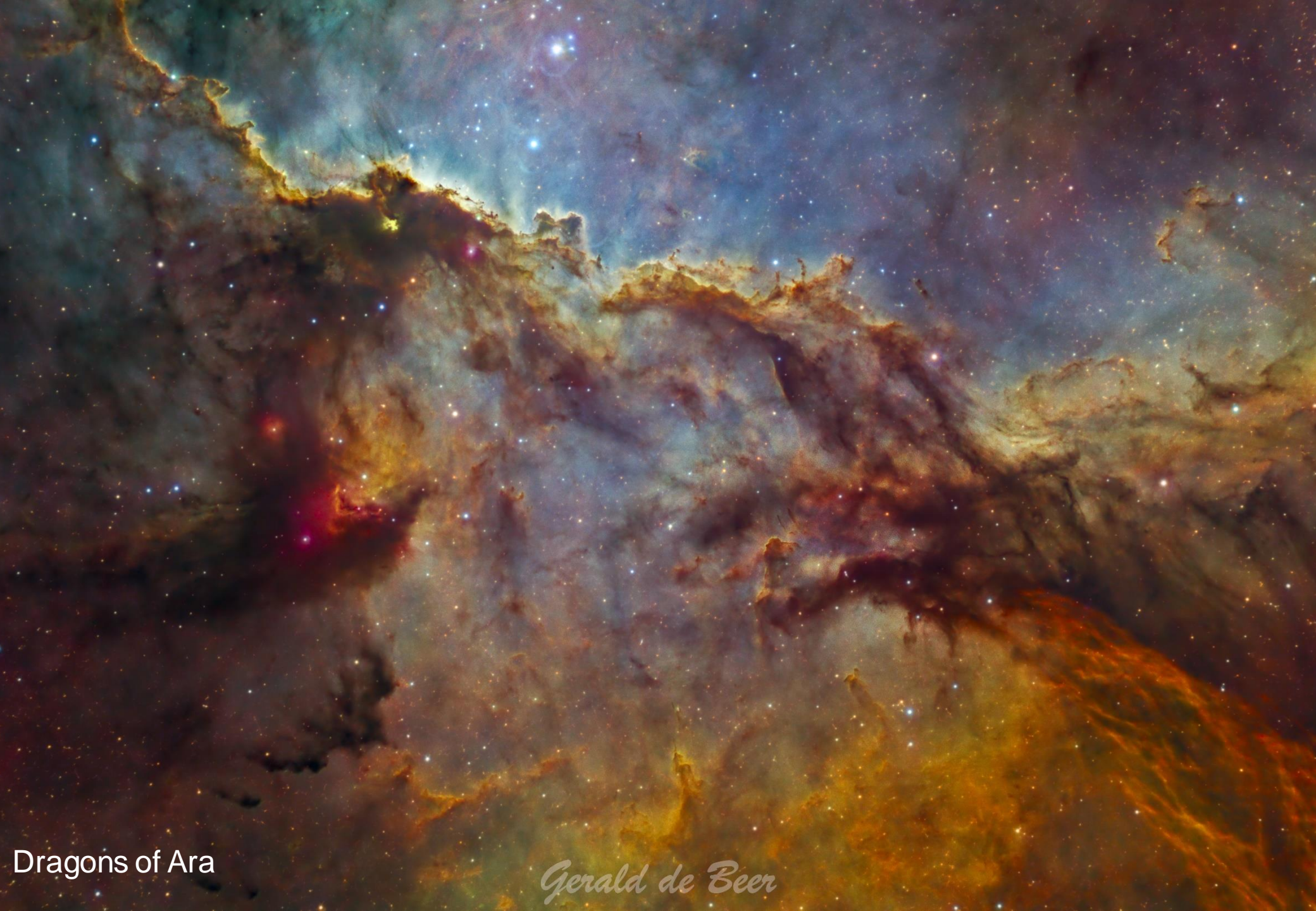
NGC1365 Great Barred Spiral Galaxy



M20

nPAE – Amazing! Tell us a little more about your life and journey as an astrophotographer.

Gerald – To follow on from your first question once I replaced my eyes with my cellphone I was captivated. More adapters followed and I then switched to a mirrorless Olympus and started video stacking images of the planets. I lost interest in the plants once I imaged the Orion Nebula, my first astro image. I realised the alt-az mount was not an option and a Celestron CGEM mount then followed on which I mounted the Newtonian. At this stage I was using my Canon 7D. I was completely hooked. I was fortunate to buy a shop soiled unbranded AT127EDT triplet refractor which is still my only telescope I use for astrophotography. My Celestron CGEM was upgraded to a Sky-Watcher EQ6-R Pro and combined with a cheap Orion guidescope and ASI290MM mini gives me tracking good enough for 6 to 10 minutes exposures. To back track slightly the dreadful lockdown we endured during the COVID outbreak allowed me to really get to grips with my astrophotography as it was an excellent form of relaxation. I especially enjoy processing so that filled the spare time. As soon as life returned to more normal that I realised I needed a dedicated cooled camera and a better mount. I had been using a Astro modified Canon SLR with great success but had reached the limit of that cameras abilities so was ready to switch to a cooled mono camera. Dew is a substantial issue, so I use dew heating bands on both the guide scope and refractor. My equipment is unchanged for some time now with the only future item on my wish list being a rotator. Thanks to our poor currency exchange rate that is quite a big purchase but will arrive at a point in the future.



Dragons of Ara

Gerald de Beer

nPAE – What advice do you have for aspiring astrophotographers?

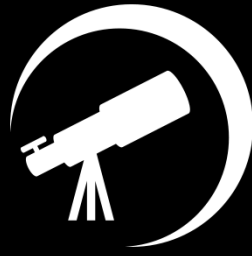
Gerald – Start slow and don't dive in at the top with the best money can buy. The equipment quality is not the most important. Hone your skills slowly. Don't try to emulate the amazing images that are easy to find on the internet or beat Hubble. Start with one shot colour, don't just dive in with mono, it's a big step up. Don't over process and oversaturate the colours. Try various processing methods. So much of a good final image is sky quality and time on the subject. I have found 5 minutes the sweet spot for my equipment and location and once I have captured more than 6 hours of total light exposures finer detail really stands out. Spend time researching targets and have a list written down with them and what month they are most overhead. Use forums and social media private groups, they have helped me a lot.

nPAE – What's it like being world champion?

Gerald – That caught me by surprise. All the entries were of a high quality and I did not think I would make the grade. I chose a lesser imaged subject as I looked at previous years and noticed that the old favourites featured a lot. I had several images I considered better but I could not use them as they had been previously published but yes very chuffed. Hopefully I will be granted enough "clear skies" to be able to enter again this year.



NGC3324-1



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