

VOLUNTEERS UNDER DARK SKIES: A SATURNIAN YEAR OF AMATEUR ASTRONOMERS IN SCIENCE EDUCATION AND PUBLIC OUTREACH



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The Vega Astronomical Association (Vega Csillagászati Egyesület, VCSE) is a Hungarian amateur astronomy community founded in 1991 with the goal of bringing together people interested in space and astronomy.

- With roots in Zalaegerszeg, VCSE acquired a nationwide reach with over 400 contributors in a central organisation and 5 regional clubs (Budapest, Dabas, Hajdúság, Nagyménfőcsanak, Somogy-Tolna). Members also join from abroad to help us broaden our scope beyond classical amateur observing.
- Over the decades VCSE has grown into a distributed network connecting amateur and professional astronomers and space enthusiasts. The increasing number of professional astronomers, educators, and space-sector experts taking part in our activities strengthens the bridge between public outreach, citizen science, and STEM education.



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Community life and teaching formats

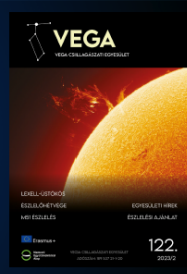
- Our members come from widely different backgrounds: STEM and humanities are almost equally represented. We create easy entry points for newcomers, while also offering depth for experienced observers and advanced learners.
- Community life runs in both in-person and online formats, enabling participation from anywhere. Our main event is the annual observing camp, held continuously since 1992, drawing about 100 participants per year. This is accompanied by dozens of observing weekends, star parties, telescope nights, public talks, online observing sessions with a remote-controlled observatory and discussions on Zoom and Discord.
- Events are designed to be highly inclusive: beginners can learn side-by-side with mentors, while advanced members can develop long-term projects and teach others. The result is a resilient and familial community where knowledge circulates quickly and people stay involved for years to come.



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Publications, archives, and online learning

- A core activity is converting individual observations and learning into a shared, durable record. Our printed tradition is anchored by *VEGA*, the association's magazine published since 1991, alongside thematic books and observing guides.
- An online ecosystem engages members and the public: monthly talks on science and observing (*Virtual Astronomy Club*), training courses and an online "e-club" during the school year, website articles, email list, and social media.
- Professional members train competitors through the Athletica Galactica selection programme to IOAA team membership and international finals. The *eszleles.hu* archive makes over 3,500 community drawings and astrophotos accessible for education and outreach.



Eta Carinae nebula, © Zsolt Ágoston

Collaborative grants

VCSE increasingly works through multi-year, partnership-based projects that connect astronomy, education, and societal challenges.

- Erasmus+ "*The Universe to Youths*" (2022–2024) was a cooperation with partners in Austria and Romania, featuring workshops and public "sidewalk astronomy" events, and bringing professional contributions into an accessible youth-focused programme.
- NoPlanetB "*Light Pollution*" (HFNYPTSZ 2025/2, 2025–2026) is an initiative where VCSE does science-informed communication on light pollution: why it matters, how it affects nature and humans, and what steps we can take to protect dark skies.



Near-space activities

VCSE's space-related activities extend the association's observational programme toward direct hands-on engagement with near-space environments.

- Four successful high-altitude balloon experiments have been a powerful "near-space" entry point: combining physics, electronics, software, and teamwork. Building a payload, launching it to over 36 kms altitude, tracking it, and analysing the data turns space from an abstract idea into a personal experience.
- VCSE also contributes to Hungarian space-education initiatives: students take part in the CanSat Hungary satellite building competition and members organise rocket-building camps in Baja and the Student Spacelab Network.
- Water-rocket experiments are a recurring hands-on activity at the astroamps.



Drawings of M13, M42, M33, © Viktória Fröhlich, Marcell Kovács



© Viktória Fröhlich



VEGA 4 balloon flight @36 km, © Flórián Vámosi

Let's connect! Become our member or partner! Companies, schools, universities equally welcome!



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VCSE Fórum



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VCSE

It's why we need to go under the sky as often as possible; these people really do get something that they didn't even know was always theirs, just nobody told them where to look... (Balázs Benze)

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