No images? Click here

ESSL Newsletter 2026-10

October 2026

ECSS2027 First Announcement

ESSL and the **Regional Environment Agency of Liguria (ARPAL)** invite you to the **13th European Conference on Severe Storms (ECSS2027)**, to be held **18–22 October 2027** at Palazzo Ducale **in Genova, Italy**.

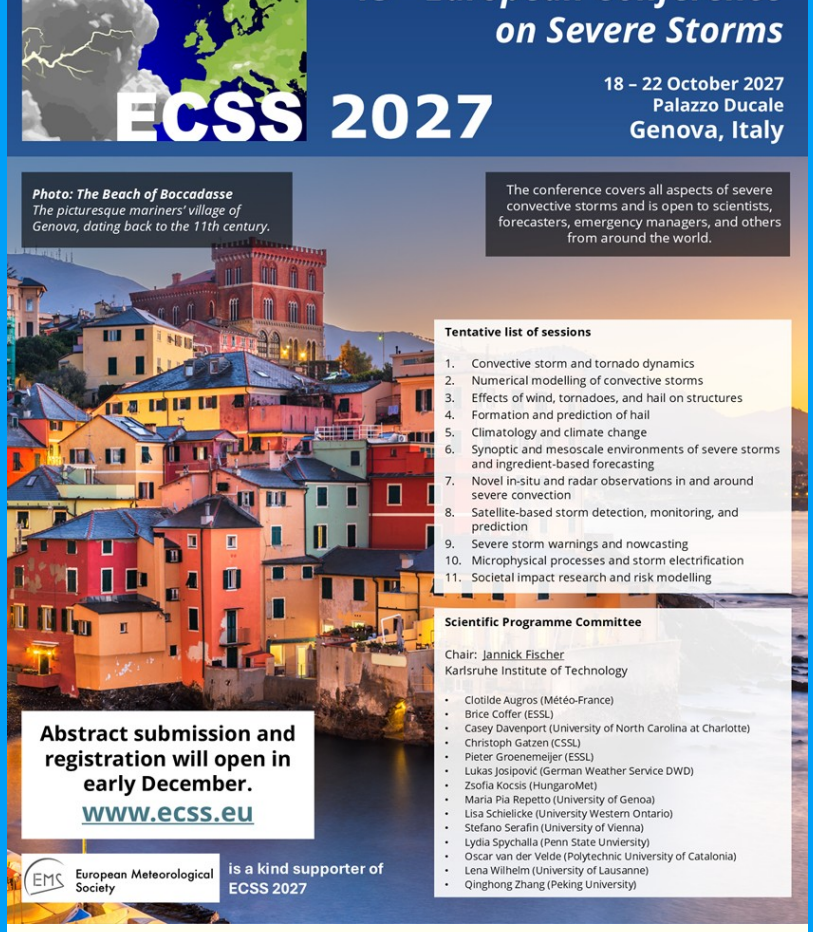
The conference covers all aspects of severe convective storms and is open to scientists, forecasters, emergency managers and others from around the world.

Scientific topics will include storm dynamics and modelling, hail and microphysics, severe weather climatology and environments, radar and satellite observations, forecasting and nowcasting, storm impacts, warnings and risk.

Abstract submission and registration will open in early December.

The First Announcement is available here.





20 years of ESSL – monthly jubilee topic

As part of the celebrations of **20 years of ESSL**, our monthly jubilee topics highlight different aspects of our work and community and revisit historical high-impact events featured in the ESSL calendar. This time, we focus on the large hail event in Saint-Marcel-d'Urfé on 10 October 1876.

Large hail in Saint-Marcel-d'Urfé (Loire, France) on 10 October 1876

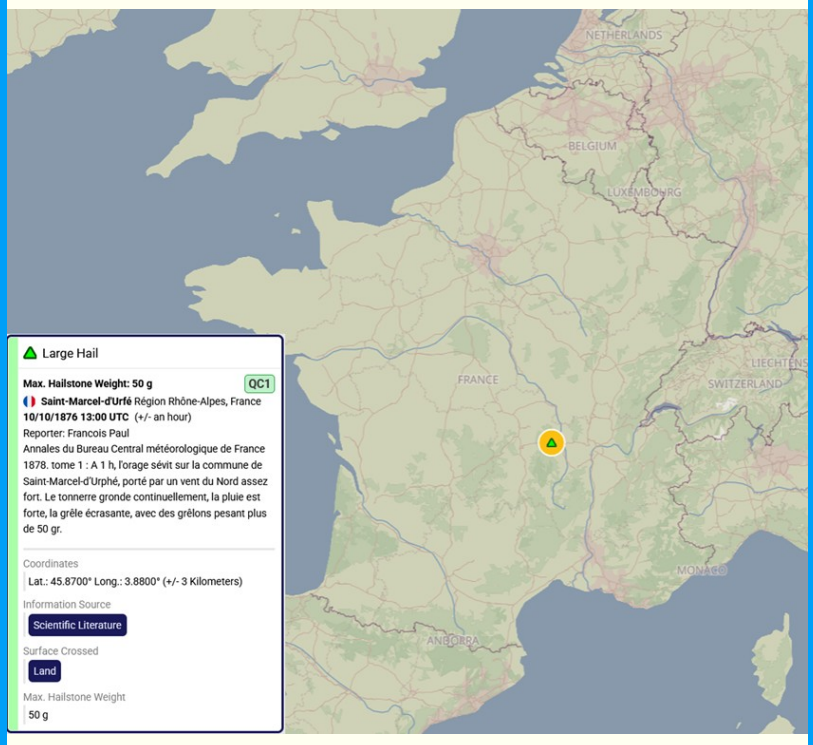
As this month marks **150 years since the event**, we revisit the large hailstorm that struck Saint-Marcel-d'Urfé (Loire, France) on 10 October 1876.

At 1 a.m. on 10 October 1876, a thunderstorm driven by a fairly strong north wind struck the commune of **Saint-Marcel-d'Urfé**. According to **M. Rousse**, who sent in the Loire department's report, it was one of the strongest storms of the year. It entered from the west and swept across the whole department, from south to north. At Saint-Marcel-

d'Urfé, the thunder was almost continuous, the rain was heavy and the hail was "crushing". Some hailstones weighed more than 50 grams. If solid ice, such a hailstone would measure at least 4.7 cm across, a little larger than a golf ball. In Europe today, hail of 2 cm or more counts as large hail.

Thunderstorms hit France on 22 days in October 1876. The report, published in the Annales du Bureau central météorologique de France [Annals of the Central Meteorological Bureau of France], counts 228 departments hit during the month. This is a running total: a department hit on three different days counts three times. The worst days were 9–14 October, when storms hit between 20 and 32 departments every day. That stretch ended with storms and floods on 13–14 October, the most destructive of the year in the Haute-Vienne department.

Source: Bureau Central Météorologique de France, "Résumé des orages en France pendant l'année 1876", in Annales du Bureau central météorologique de France, Tome I, Paris: Gauthier-Villars, 1878, pp. A.24–A.30 (Saint-Marcel-d'Urfé hailstorm: pp. A.25–A.26). Bibliothèque de Météo-France, digitised by the Bibliothèque nationale de France: gallica.bnf.fr/ark:/12148/bpt6k6513987n



Location of large hail event on 10 October 1876 (green triangle; source: ESWD).

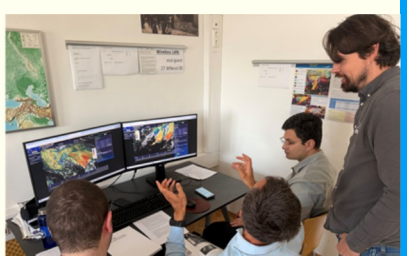
Our workshops and initiatives – what ESSL considered important to highlight

The courses and testbeds we offer are largely based on what has been—or still is—lacking in Europe. Or, to put it more generally: we try to promote topics where we see a need for more attention.

The satellite aspect has been well covered in recent years through our collaboration with EUMETSAT, particularly through expert workshops and testbeds for weather forecasters—mainly driven by the introduction of MTG. A new framework agreement was signed this spring. And we are observing that satellite data is increasingly being used in forecast centres for reliable nowcasting of severe weather.

From a nowcasting perspective, and compared with other regions of the world where radar use is already more advanced, we believe the topic of radar in Europe deserves more attention. In some countries, the balance in radar settings between what is optimal for quantitative precipitation estimates and what is optimal for other hazards appears to be far from ideal. This leads, for example, to very confusing or even unusable Doppler wind data. At ESSL, we are trying to address this issue by bringing it to the attention of weather services (see our ECSS poster), providing a sandbox visualisation and a demonstrator for optimised individual radar displays via our ESSL Radar Displayer, as well as offering annual courses for developers and meteorologists on the optimal visualisation and use of radar data for forecasting various types of hazardous convective storms.







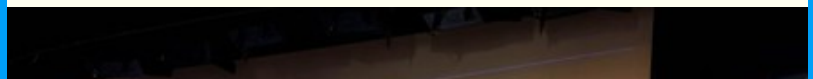

Another area of expertise that is surprisingly lacking at many European weather services is the ability to assess the intensity of windstorms based on the damage they cause. Without systematic efforts to collect these data, one cannot expect meaningful information to be available for climatology and research. And in the event of a catastrophic storm, services can quickly become overwhelmed by the demand to document and classify the event. In response to this need, ESSL offers a course on wind damage assessment every two years, with the goal of improving the operational readiness of national weather services and other participating institutions. In addition, ESSL provides on-site practical support for the assessment of extreme wind events; that is, it can dispatch a small team of experienced assessors to assist local staff.

Celebrating 20 years of ESSL

On 28 September, ESSL celebrated its 20th anniversary in Wiener Neustadt together with colleagues, partners and friends from across Europe and beyond.

The event offered an opportunity to look back at how ESSL started, what has been achieved over the past two decades, and what may lie ahead. The programme reflected many parts of ESSL's story, including research, forecasting, training, severe weather documentation and international collaboration.

We are grateful to everyone who has supported ESSL over the years and continues to work with us today, and we look forward to many more years of collaboration.





Looking back at 20 years of ESSL during the anniversary celebration in Wiener Neustadt.

Upcoming training highlights

Optimal use of radar data in severe storm nowcasting – 2nd edition

15–19 February 2027

With more and more European countries operating state-of-the-art dual-polarimetric radars, making the best possible use of radar data is increasingly important for severe storm nowcasting. This course aims to link the latest knowledge of convective storm dynamics and processes leading to different hazards with how these can be observed in radar data.

Morning lectures are followed by practical afternoon exercises using the ESSL Weather Data Displayer and ESSL Radar Displayer. The course is led by **Dr. Tomáš Púčik**, with **Bram van 't Veen**, ESSL radar expert and developer of the ESSL Radar Displayer, as co-trainer.

Course on Forecasting Severe Convection – the ESSL standard

1–5 March 2027

This is the kind of course every weather forecaster

should experience at least once. It introduces the fundamentals of ingredients-based forecasting, with particular emphasis on convective initiation, vertical wind shear, storm organisation and the synoptic and mesoscale environments supportive of severe weather.

The course connects these concepts with different convective hazards and storm types, while the afternoon sessions focus on hands-on forecasting exercises using current or past severe convection cases from across Europe. Participants work in small groups and discuss their forecasts with **Dr. Tomáš Púčik**, linking the practical exercises directly to the concepts covered during the morning sessions.

Details and registration for both courses are available at events.essl.org. Places are limited, so make sure to register early and secure your spot.

ESSL event and training calendar 2027

The full ESSL event calendar includes our upcoming courses, Testbeds, workshops and conferences throughout 2027.

Date	Activity
15 – 19 February 2027	HIGHLIGHT - 2nd edition of **new radar course**: Optimal use of radar data in severe storm nowcasting
1 – 5 March 2027	The legendary STANDARD every forecaster should attend at least once: Course on Forecasting Severe Convection
15 – 19 March 2027	Course – spring edition: Aviation Forecasting of Severe Convection
10 – 14 May 2027	EUMETSAT-ESSL Forecaster Training Testbed with focus on MTG – week 1
31 May – 4 June 2027	EUMETSAT-ESSL Forecaster Training Testbed with focus on MTG – week 2
7 – 11 June 2027	ESSL Testbed with focus on radar, nowcasting products and NWP – week 1
21 – 25 June 2027	ESSL Testbed with focus on radar, nowcasting products and NWP – week 2
28 June – 2 July 2027	ESSL Testbed – expert week This event is by invitation only.
5 – 10 September 2027	EMS Annual Meeting (co-sponsored by ESSL) Kraków, Poland
13 – 17 September 2027	EUMETSAT-ESSL Forecaster Training Testbed with focus on MTG – week 3
18 – 22 October 2027	European Conference on Severe Storms – ECSS2027 in Genova, Italy
22 – 26 November 2027	Course – autumn edition: Aviation Forecasting of Severe Convection

You can find details about all events and registration at

https://www.events.essl.org/.

Unsure which course to attend? Try our online quiz!

For further information about registration, please contact us via email at events@essl.org.

Or contact us for tailored training or forecaster training on the job.

ESSL
European Severe Storms Laboratory

Preferences | Unsubscribe