

# FUSION 2022 REPORT

## REPORT ON THE 25TH INTERNATIONAL CONFERENCE ON INFORMATION FUSION

The 25th International Conference of Information Fusion, FUSION 2022, was held in Linköping, Sweden, July 4–7, 2022. This was the second time FUSION was held in Sweden; the first time was in Stockholm in 2004. We considered Linköping to be the most appropriate place for this second time for many reasons. For the past 100 years, Linköping has been the aerospace capital of northern Europe, with two airfields, aircraft manufacturing industries, air force training, and an entire ecosystem of innovation and exploration built around this. Furthermore, the city hosts the Swedish Defence Research Agency, the Swedish Air Force Museum, an upcoming national cyber security centre, and many local industries with strong competencies and large activities in the information fusion area.



Gustaf Hendeby welcoming the group at the Swedish Air Force Museum.

Linköping University was founded in the 1960s as an engineering university to support Swedish aerospace and other industries. Since it was established, it has created more than 150% growth across the entire city. The science park has attracted 350 companies that employ more than 7,000 people, focusing on areas such as automotive safety, telecommunications, medical technology, and the Internet of Things. Linköping University, with its electrical engineering, computer science, and mechanical engineering departments, has contributed hundreds of papers to FUSION over the years. Its strong position in Sweden is manifested by it being part of the \$600 million (6.1 SEK) Wallenberg Artificial Intelligence, Autonomous Systems and Software Program, focusing on autonomous systems and machine learning.

Beyond science and engineering, Linköping has a compact and beautiful city centre within walking distance of the conference venue, which made it easily accessible to conference participants. Linköping has a rich history, dating back more than 700 years. It hosts both the bishop of one of Sweden's first and most notable dioceses (1107) and a beautiful 800-year-old cathedral. The group tour of this historical heritage prior to the ice-breaker was well received, as was the welcome reception at the Swedish Airforce Museum.

A long time has passed since we presented our winning bid to host FUSION in Linköping while in Cambridge, United Kingdom, in 2018. We had expressed our intention to bid for 2021 to the International Society of Information Fusion board while at FUSION in Xi'an, China, in 2017. That being said, the whole planning process lasted for more than five years. Indeed, our planning was interrupted by the COVID-19 pandemic. First, the conference was postponed by a year to give South Africa a second opportunity. Furthermore, we had the challenging task of planning for the conference in the face of significant uncertainty surrounding the unfolding pandemic. Fortunately, we had close collaborations with the local conference organiser, venue, and hotels, which were more than understanding and supportive. In the end, we are grateful that the pandemic

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Fredrik Gustafsson downtown on the Linköping main square.



FUSION 2022 gala dinner at the Linköping Concert and Congress Center.

did not severely affect our conference again. However, some countries still had complex travel restrictions, and we had to be flexible and accommodating to alternatives for these authors. As a result, slightly more than 10% of the presentations had prerecorded videos instead of regular presentations. We could also see that the pandemic had residual consequences which did affect both the number of submitted papers and the number of attendees travelling to Sweden.

Looking at FUSION 2022 in numbers, we received in total 228 paper submissions. These were evaluated in 866 reviews, on average 3.8 reviews per paper, and no paper got fewer than three reviews. In total, 168 papers were accepted, leading to an acceptance rate of 74%.

There were 311 participants in all, consisting of 222 early-bird and 51 regular registrations. Five students from across the globe were awarded travel grants and free registration. In fact, of all the participants, more than a third registered as students. Furthermore, besides the volunteers, we had 21 registered sponsors. We are proud to have attracted many sponsors and are thankful for their contributions. Out of the 14 sponsors, four opted to be gold sponsors.

Despite the aftermath of COVID-19, participants from 28 countries attended, from every continent short of Antarctica. The conference had representatives from 170 different universities, companies, and organisations. It was obvious that many had a strong desire to meet in person to discuss, collaborate, eat, and drink amongst friends and colleagues after the prior few years of disruptions.

This excitement manifested itself in a record for the average number of participants per paper, with more than 1.8 participants per paper, which was an all-time high in the history of FUSION (excluding the fully online conference in 2020). The evening social events were fully booked, with many of our colleagues bringing partners, spouses, and family along. The need for personal interactions and a meeting of colleagues and friends



Wolfgang Koch presents the Maria Window during the cathedral tour.

to discuss science and engineering was obvious. Everyone was excited that it was once again possible to meet our FUSION family! Who would have thought that being normal would be what we want the most? We are, starting with FUSION 2022, hopefully back to normal again. As the general chairs, we thank you on behalf of the organizing committee.