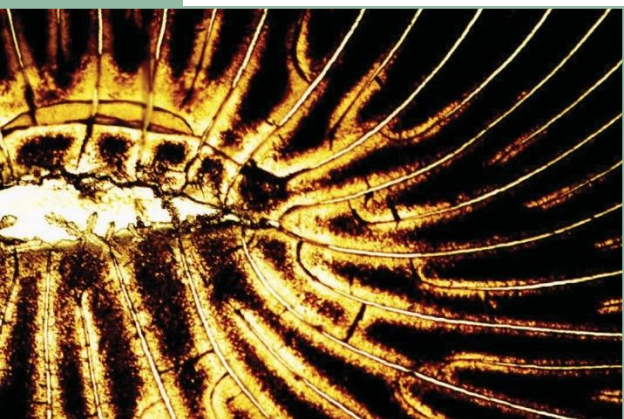


CAMBRIDGE



Bid for FUSION 2018

9-12 July 2018 in Cambridge, UK

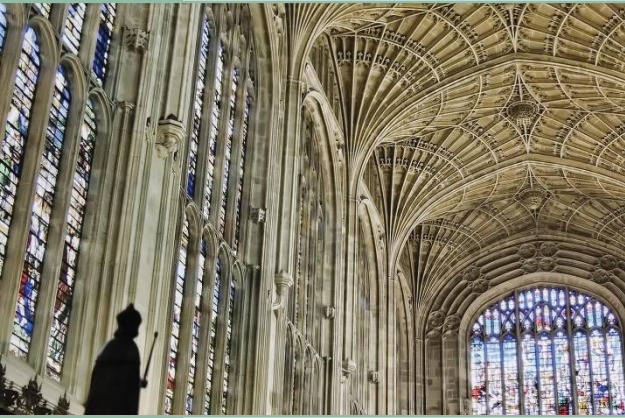
Organization Team

General Chair:	Simon Godsill, University of Cambridge, UK
Honorary Chair:	David Salmond, QinetiQ, UK
General Co-Chairs:	Lyudmila Mihaylova, University of Sheffield, UK Simon Maskell, Liverpool University, UK
Finance Chair:	Visakan Kadiramanathan, University of Sheffield, UK
Program Co-Chairs:	Daniel Clark, Heriot-Watt University, UK Wolfgang Koch, FKIE, Germany
Technical Co-Chairs:	Uwe Hanebeck, Karlsruhe Institute of Technology, Germany Stefano Coraluppi, Systems & Technology Research, USA Roy Streit, Metron, USA
Executive Co-Chairs:	Sumeet Singh, University of Cambridge, UK David Hall, Pennsylvania State University, USA
Publication Co-Chairs:	Peter Willett, University of Connecticut, USA Gee Wah Ng, Singapore Darin Dunham, USA
Academic Co-Chairs:	Simon Julier, University College London, UK Xiao-Rong Li, University of New Orleans, USA
Tutorials Chair:	James Llinas, SUNY-Buffalo, USA
Awards Co-Chairs:	Y Bar-Shalom, USA Fredrik Gustafsson, Linköping University Allan Steinberg, USA
Exhibitions Chair:	Sumeet Singh, University of Cambridge, UK
Local Arrangements Chairs:	Nick Kingsbury and Jan Maciejowski, University of Cambridge, UK

The committee have wide-ranging experience of conference organisation over many years, for example Simon Godsill was Technical Chair and Simon Maskell was General Chair of Fusion 2010 in Edinburgh, Godsill was General Chair of IEEE NSSPW 2006 in Cambridge and is a co-chair of SPARS15 in Cambridge, Lyudmila Mihaylova is Program Co-Chair for the 19th International Conference on Information Fusion, Heidelberg, Germany, July 5-6 2016, General Co-Chair for the IET Data Fusion & Target Tracking Conference, 30 April 2014, University of Liverpool, and has many other relevant items of experience on national and international conference committees.

The committee as a whole has been very carefully selected to represent all areas of Data and Information Fusion, from high level fusion through to low level fusion and tracking. This variety of expertise will feed directly into the wide-ranging conference programming that we propose.

CONFERENCE FACILITY



The conference will be hosted at the Sidgwick Site, Cambridge. This is a large and beautiful campus containing a number of the University's major faculties. We will be based principally in the Music Faculty, which offers the following facilities:

- A large auditorium for plenary talks seating 499 on raked, fixed seats
- A large foyer suitable for exhibitions, lunches, posters, etc.
- 6 lecture rooms ranging from 50-100 seats plus many more lecture rooms available in neighbouring buildings, seating up to 150 people in each.



The conference venue is centrally located on the beautiful Sidgwick Avenue/ West Road routes into central Cambridge, which is only 10 minutes' walk away. Accommodation in nearby colleges is even closer (from 1 minute walk) and hotels are all within 15 minutes' walk. Delegates should not require any public transportation to access the conference from their lodgings.

FINANCES



Since Cambridge is a very popular venue, transportation is very straightforward and July is a good time of year for climate, we can expect relatively high delegate numbers. We anticipate say 450 delegates, a little higher than for Edinburgh in 2010. In our spreadsheets we work with a conservative estimate of 350 – 550 delegates, and we explore the options of 350, 450 and 550 in our budget calculations. We also assume a very conservative distribution of registrations, almost entirely early-bird in order to reduce risk of deficit.

The budget is in surplus by approx. £7000-£25000 for all three of our calculated scenarios in budget (Scenarios 1-3).

We have a 'break-even' point of approximately 250 delegates in the proposed venue. While we do not anticipate numbers being less than this, we have also investigated fall-back options that deliver a surplus down to around 250 delegates (Scenarios 'very low' in the budget). These fall-back options use a smaller, cheaper venue (Department of Engineering, University of Cambridge) and a less expensive conference banquet.



IEEE Aerospace and Electronic Systems Society (AESS) has agreed to act as a technical co-sponsor and we await only the signing of the MOU in order to activate this sponsorship. Risk and surplus for the conference will remain with ISIF and liability insurance will be purchased to cover unforeseen events. Since the costs are quite well defined at this stage, and since we have lower cost fall-back options available, we believe there is very little financial risk involved in running the conference.

Registration fees, which include ISIF membership and the conference banquet, are proposed as:

	Early-bird	Regular	On-site
Student	£350	£450	£550
Full	£600	£700	£800

These fees are very reasonable in our opinion when compared with fees at other FUSION conferences in popular destinations. For example, the Early-bird Full registration is less than the price of Edinburgh 2010 (£615, or \$942 at 1.57\$/£ - exchange rate on 29/6/2015), both in absolute price and in real terms (compound inflation in the UK since 2010 to 2015 is approximately 20%).

We note that UK VAT at 20% is *not* payable on these registration fees, since registration payment will be via the University of Cambridge. This represents a substantial saving to the conference. We have included VAT on all other items, but may in practice be able to claim some of this back after the conference, hence boosting further the possibility of a strong surplus for ISIF.

In order to keep costs at a minimum, we will use local PhD students and post-doctoral researchers to assist wherever feasible.

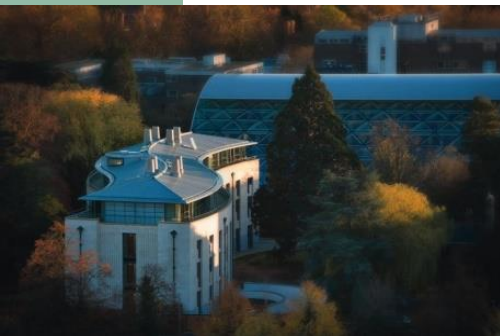
Sponsors are likely to include: University of Cambridge, University of Sheffield and University of Liverpool, as well as potentially QinetiQ, BAe, Selex-ES and Thales.



ACCOMMODATION



Stephen Hawking Building



Stephen Hawking Building



Trinity Hall College



Trinity Hall College

Accommodation is available at high quality hotels and guest houses, and we have specially negotiated room rates at these hotels, see Appendix. A special treat for conference visitors, however, is to stay in the rooms of one of the ancient Colleges, available at very reasonable rates and right in the historic centre of the city. These will also provide cheaper accommodation for student participants (see also

www.visitcambridge.org/accommodation/college-rooms)

Accommodation site 1: Gonville and Caius College. 164 rooms are reserved for the conference.

This accommodation is two minutes' walk from the conference venue, in the modern Stephen Hawking Building, see left.

The new Stephen Hawking Building contains superior en-suite rooms. Rooms in this building are priced from £67.00+VAT each and include hospitality tray, WiFi Internet access, toiletries and a full English and Continental breakfast.

There are additional rooms in Harvey Court, which was completed in 1962. It was designed by Prof. Sir Leslie Martin, the Cambridge Professor of Architecture, and has won many prizes. It represents the then contemporary style where materials of construction are fully exposed. The building was refurbished in 2011 to provide one hundred single rooms with en suite facilities. These rooms are also priced at £67.00+VAT per person per night and include hospitality tray, WiFi Internet access, toiletries and a full English breakfast.

Accommodation site 2: Trinity Hall College. 170 rooms reserved for the conference. This accommodation is 10-15 minutes' walk from the venue.

The breath-taking surroundings of Trinity Hall and its historic setting dating to the 14th Century, mixed with tasteful decorations, make it a perfect venue. 100 B&B single en-suite rooms are available at the Wychfield Site at £78.00+VAT, located on Storeys Way (15 mins. Walk from venue) and 70 B&B double en-suite rooms at Wyng Gardens at £110.00+VAT on Thompsons Lane. Wyng Gardens is a new build due to open in 2017.

Hotels: Cambridge offers also a wide variety of hotel accommodation within walking distance of the conference, in all star categories. We will arrange for a number of rooms to be held back for conference delegates on a first come first served basis, at our specially negotiated conference room rates. Details of the principal hotels are given in the appendix (see also www.visitcambridge.org/accommodation).

LOCAL ATTRACTIONS

TOURIST ACTIVITIES



The city of Cambridge is one of the most important and beautiful in the UK, famous throughout the world for its university and colleges. Its academic excellence and range of business, commercial and scientific interests are reflected in the wide variety of visitors and the number of events and meetings that take place here every year.

Cambridge is a wonderful tourist destination, with many world-famous historic and scientific landmarks (from King's College Chapel to the Cavendish Laboratory where the electron was discovered and the Eagle Pub where Crick and Watson discovered DNA).

See below for further information about Cambridge as a tourist venue, and also <https://www.youtube.com/user/confcam/videos> for on-line information.



The University comprises numerous tourist attractions of special interest to FUSION visitors, including the 26 ancient Colleges (Trinity College, Newton's own college, houses the Wren Library with numerous scientific manuscripts including Newton's Principia), the Old Cavendish Laboratory which was crucial in the development of modern atomic theory and quantum theory, the Parker Library at Corpus Christi College, containing the Canterbury Gospels and the Bury Bible, King's and St John's Colleges which have beautiful chapels and world-famous choirs which sing daily at public services.

The city has attractive architecture, both ancient and modern. It also has huge cultural appeal, a wide variety of arts and entertainment and superb shopping facilities. There is a programme of arts and science events all year round, with a range of festivals in summer including the world-famous Cambridge Folk Festival. Some of the city's main attractions are related to the well-known colleges of the University of Cambridge, including the libraries, churches and the famous college gardens, such as King's College and St John's College. And no visit to Cambridge would be complete without experiencing punting on the River Cam.



Today, Cambridge is at the heart of the high-technology centre "Silicon Fen" with its economic strengths from industries such as software and bioscience, with many start-up companies having been spun out of the university, including ARM and Autonomy.



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LOCAL ATTRACTIONS

TOURIST ACTIVITIES



King's College Chapel



Parker Library



Trinity College Great Court



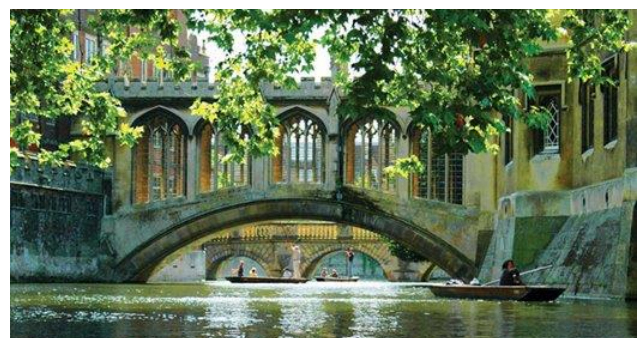
Many people visit Cambridge each year to see the historic university, its buildings and the beautiful Backs. Walking tours around the city centre are available daily.

King's College Chapel is probably the most famous building in Cambridge, completed by Henry VIII, with its fan vaulted ceiling, stone carvings and Tudor stained glass which was almost miraculously saved from destruction by Cromwell's iconoclasts during the Civil War.

There is a market in the centre of the city which is open daily, as well as a range of shops including small independent and larger high street stores and designer labels. There is also a choice of galleries and museums, contemporary and classic, many of which are free to visit.

Must-see things in Cambridge include:

- Visit the fabulous Colleges, including King's College Chapel. This world-famous attraction is available for tours at reasonable cost, and chapel services sung by the internationally renowned college choir are freely accessible each day at 4.30pm
- Visit the Parker Library at Corpus Christi College. Free tours will be arranged for conference delegates of this unique collection, ranging from the Canterbury Gospels (brought to England by St Augustine and used at coronations of Monarchs in Canterbury Cathedral), one of the finest sets of Anglo-Saxon manuscripts in the world, and rare printed scientific books including Newton's Principia.
- Visit Trinity College Great Court, site of the famous 'Great Court Run' held every year and featured in the movie 'Chariots of Fire'.
- Hire a punt (chauffeur driven or self-drive) and navigate the 'Backs' of the River Cam.



TRAVEL

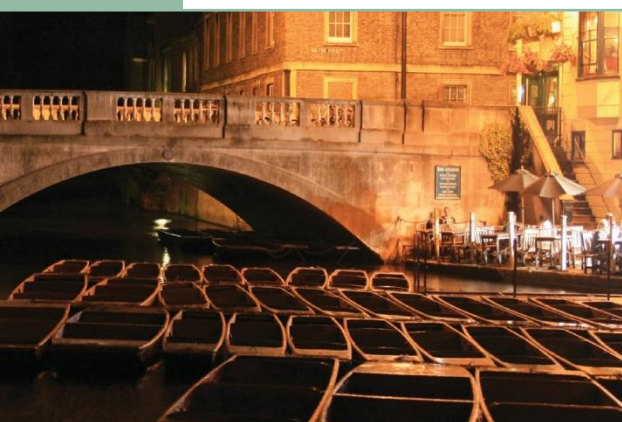


Cambridge is within easy reach, by rail, coach or car, of London Heathrow and Stansted airports, with good motorway, rail and bus connections to other parts of the UK. There are excellent rail connections to London and to Scotland and the North via Peterborough, as well as to Birmingham and the Midlands. London Stansted is the nearest airport, with a direct rail link to Cambridge, taking 30 minutes and running approximately every 30 minutes.

The conference venue is in central Cambridge and within 1-10 minutes walking distance of all the main hotels and college accommodation.

For further details, see:

<http://www.visitcambridge.org/visitor-information/how-to-get-here>



CONFERENCE PROGRAM



The conference program will provide a carefully constructed balance between the different areas of Data and Information Fusion, from high-level information Fusion systems and situational awareness through to low-level tracking algorithms, with contributions relevant both to theorists and industry practitioners. Our conference committee has been chosen in order to represent all of the major strands in Data and Information Fusion.

The program will include the following activities:

- Tutorials
- Plenary talks
- Special sessions
- Regular oral paper presentations
- Panel discussions
- Exhibitions

Progress and achievements will be presented in the following areas of information fusion:

- theory and representation,
- algorithms for data and information fusion,
- fusion systems design,
- modelling, simulation and evaluation
- applications, and
- emerging areas.



Our tutorials and plenary talks will be balanced between core FUSION topics and emergent areas in relevant disciplines such as Machine Learning, Big Data and Deep Networks. We have already approached possible speakers: Nando De Freitas (Machine Learning), Fredrik Gustafsson (Low-level Fusion – already agreed) and David Hall (High-level Fusion).

The conference will be organized with tutorials during the first day (July 9). The three main conference days start with plenaries. Papers will be presented during the days in special session and regular session papers in eight parallel tracks. The ISIF BoD meeting will take place after the conference, on July 12.

The publicity plans comprise several means of disseminating information to the largest possible technical audience at both an international and local level, in order to attract a large number of attendees from academia and industry. The publicity plans include the following pre-conference activities:

- Advertisement campaign during Fusion 2016 and 2017
- Distribution of hardcopies of call-for-papers, posters, brochures starting with Fusion 2017
- Regular dissemination of conference information via mailing lists
- Setup of conference website as early as possible (a prototype website is already constructed <http://sigproc.eng.cam.ac.uk/Fusion2018/>)



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Post-conference publicity includes archiving of the proceedings on IEEE Xplore and the dissemination of scientific highlights to news channels and newspapers. Our host Universities' publicity departments will be able to assist with dissemination to the media.

SOCIAL PROGRAM



Duxford AirSpace



The **conference reception** will be held on evening of 8 July. This will be in one of the ancient college dining halls, showing the historic architecture and ambience of Cambridge.



The **conference banquet**, by contrast, will be held at the [Duxford Air Museum](#), situated right in the Airspace exhibition area of the museum. AirSpace is a dramatic exhibition, telling the story of British aviation from the earliest pioneers to the latest hi-tech aircraft. Containing over 30 aircraft, including the iconic Lancaster, Spitfire and Concorde, the Aircraft Hall is the exhibition centre piece and a unique setting for any event.








Dining will literally be under the wings of Concorde.


Duxford is a 10 minute coach journey from Cambridge and transportation is included in our budget.

APPENDIX: HOTEL ACCOMMODATION

A selection of the principal hotels, along with negotiated room rates (all rates for single occupancy, inc. VAT, as at 2015) is given below. There is also a huge range of smaller guest houses, B&B, all at a wide range of prices, see <http://www.visitcambridge.org/accommodation> and also <http://www.universityrooms.com/> which is able to offer budget accommodation from £34 per night.

Double Tree Hilton	<p>From £162 per night</p> <p>One of the largest and most luxurious hotels in the centre of Cambridge</p>	
The Royal Cambridge	<p>***</p> <p>From £99 per night</p> <p>A smaller hotel in the centre of Cambridge, close to the University's Engineering Department</p>	
The University Arms	<p>****</p> <p>From £113 per night</p> <p>Currently being refurbished.</p> <p>One of the largest and most prestigious hotels in Cambridge</p>	
The Varsity	<p>****</p> <p>£145 per night</p> <p>Smaller luxury hotel and spa with unsurpassed rooftop views from its restaurant</p>	
Hotel du Vin	<p>****</p> <p>£153 per night</p> <p>A luxurious hotel in the centre of Cambridge very close to the Engineering Department</p>	



Premier Inn	*** From £60 per night. Modern budget hotel on outskirts of Cambridge	
Holiday Inn Express	*** From £80 per night A good budget hotel on the outskirts of the town	