

STAF 2014

York, United Kingdom

21-25 July 2014



Organized by the Enterprise Systems Group

Department of Computer Science, University of York

CONFERENCE PROGRAMME OVERVIEW

| STAF 2014 Overview | Monday July 21 | | | | |
|--------------------|---------------------------------------------------------|--------------------|-----------------------------------------|----------------------------------------|-------------------|
| 0900-1030 | STAF (PX001) Welcome & invited talk - Bertrand Meyer | | | | |
| 1030-1100 | Coffee Break | | | | |
| 1100-1230 | DocSym 1 (PT007) | MORSE 1 (PL005) | GCM 1 (PL002) | VOLT 1 (PL006) | |
| 1230-1400 | Lunch | | | | |
| 1400-1530 | DocSym 2 (PT007) | MORSE 2 (PL005) | GCM 2 (PL002) (** 1330 start) | ICMT (PX001) Keynote - Jean Bezivin | |
| 1530-1600 | Coffee Break | | | | |
| 1600-1800 | DocSym 3 (PT007) | MORSE 3 (PL005) | GCM 3 (PL002) | VOLT 2 (PL006) | ICMT 1 (PL001) |

| STAF 2014 Overview | Tuesday 22 July | | | | |
|--------------------|-----------------------------------------------------------|-------------------|------------------|-------------------|-------------------|
| 0900-1030 | ICGT (PX001) Welcome & invited talk - Giorgio Delzanno | | VAO 1 (PT007) | | MT^2 1 (PL006) |
| 1030-1100 | Coffee Break | | | | |
| 1100-1230 | ICGT+ICMT 1 (PL001) | | VAO 2 (PT007) | BMFA 1 (PL005) | MT^2 2 (PL006) |
| 1230-1400 | Lunch | | | | |
| 1400-1530 | ICGT+ICMT 2 (PL001) | | VAO 3 (PT007) | BMFA 2 (PL005) | MT^2 3 (PL006) |
| 1530-1600 | Coffee Break | | | | |
| 1600-1800 | ICGT 3 (PL002) | ICMT 2 (PL001) | VAO 4 (PT007) | BMFA 3 (PL005) | MT^2 4 (PL006) |
| 1900-2130 | Reception - Exhibition Centre | | | | |

| STAF 2014 Overview | Wednesday 23 July | |
|--------------------|--------------------------------------------------------------------------------|--------------------|
| 0900-1030 | Keynote - ECMFA Foundations (PX001) Welcome & invited talk - Marsha Chechik | |
| 1030-1100 | Coffee Break | |
| 1100-1230 | ICGT+ICMT 3 (PL002) | ECMFA 1 (PL001) |
| 1230-1400 | Lunch | |
| 1400-1530 | ICGT 4 (PL002) | ECMFA 2 (PL001) |
| 1530-1600 | Coffee Break | |
| 1600-1800 | ICGT 5 (PL002) | ECMFA 3 (PL001) |
| 1900-2300 | Banquet - National Railway Museum | |

| STAF 2014 Overview | Thursday July 24 | | | |
|--------------------|---------------------------------------------------------------------|------------------|-------------------|---------------------|
| 0900-1030 | Keynote - ECMFA Industrial (PX001) Invited talk - Darren Buttler | | | |
| 1030-1100 | Coffee Break | | | |
| 1100-1230 | ECMFA 4 (PL001) | TAP 1 (PL005) | ICGT 6 (PL002) | BigMDE 1 (PL006) |
| 1230-1400 | Lunch | | | |
| 1400-1530 | | TAP 2 (PL005) | | BigMDE 2 (PL006) |
| 1530-1600 | Coffee Break | | | |
| 1600-1800 | ECMFA 5 (PL001) | TAP 3 (PL005) | ICGT 7 (PL002) | BigMDE 3 (PL006) |
| 2000 | ICGT Dinner (organised informally) - ASK Italian | | | |

| STAF 2014 Overview | Friday 25 July | | | |
|--------------------|--------------------------------|----------------------|----------------------------------------------------|--|
| 0900-1030 | TTC Start + IMDB (PT006) | TTC FIXML (PT007) | Keynote - TAP (PL005) Invited Talk - Ross Smith | |

| | | | | |
|-----------|------------------------------------------|-----------------------------|-------------------------|---------------------------------------------|
| 1030-1100 | Coffee Break | | | |
| 1100-1230 | TTC IMDB (PT006) | TTC FIXML (PT007) | TAP 4 (PL005) | GraBats 1 (PL002) |
| 1230-1400 | Lunch | | | |
| 1400-1530 | TTC Live (PT006) | TTC Live (PT007) | TAP 5 (PL005) | GraBats 2 (PL002) (** 1330 start) |
| 1530-1600 | Coffee Break | | | |
| 1600-1800 | TTC Live & Results (PL006) | TTC Live (PT007) | TAP 6 (PL005) | |

SOCIAL EVENTS

WELCOME RECEPTION (TUESDAY 22ND JULY)

A welcome reception will be held in the Exhibition Centre starting at 1900. There will be local beers, drinks and canapes. If you have registered for the full STAF week, or for the Monday/Tuesday package, a ticket will be included. Additional reception tickets (if available) can be purchased from the registration desk.

BANQUET (WEDNESDAY 23RD JULY)

The banquet will be held in the National Railway Museum (YO26 4XJ), surrounded by trains. If you have registered for the full STAF week, a ticket will be included. Additional banquet tickets (if available) can be purchased at the registration desk. Arrival: 1900 for dinner at 1930. Coaches will leave from the conference venue (the Campus West car park) at 1830, and will return after dinner. If you are staying at a city centre hotel, you can easily walk back from the railway museum to your hotel (around 10-15 minutes).



WELCOME TO STAF 2014

Software Technologies: Applications and Foundations (STAF) is a federation of the leading conferences on software technologies. It was formed after the successful TOOLS federated event (<http://tools.ethz.ch>) in 2012, providing a loose umbrella organisation, with an international steering committee that aims to provide continuity in terms of identifying themes and events that would be beneficial to co-locate.

The STAF federated event runs annually; the conferences that participate may vary from year to year, but all focus on practical and foundational advances in software technology. The conferences address all aspects of software technology, from object-oriented design, testing, mathematical approaches to modelling and verification, transformation, model-driven engineering, aspect-oriented techniques, and tools.

Over 5 days, STAF 2014 will offer 6 invited talks by distinguished speakers, 5 main conferences, 8 workshops and a unified doctoral symposium.

WELCOME TO YORK

STAF 2014 will be hosted by the University of York, in the beautiful Viking and Roman town of York, in Yorkshire. The city was founded by Romans in 71 A.D. and visited by Emperors, including Hadrian; Constantine was born in York. York was later conquered by the Vikings, and played an important role in the unification of England in the 10th century. Today, the city displays evidence of its Viking and Roman heritage. It is home to the York Minster, the largest gothic cathedrals in Northern Europe. The city's Roman walls partly surround the inner city proper. It is the seat of the railways in England, and features a magnificent national railway museum.

STAF 2014 will be held on the Heslington West campus of the University of York. Founded in 1963, the University has grown to nearly 16,000 students in over 30 departments. The University campus splits across two sites - *Heslington East* and *Heslington West*. The original 200-acre site, Heslington West, was formerly the grounds of *Heslington Hall*, the sixteenth-century home of Thomas Eynns, Secretary and Keeper of the Seal to the Council of the North. Now the administrative centre of the University, it retains its Elizabethan towers and courtyard, and the recently-restored great hall

ceiling. Heslington East is a recent £750m expansion which has seen the opening of seven new buildings, increasing the capacity for student numbers and providing more world-class facilities for the 21st century.

WHAT TO SEE

York is a city of around 200000 inhabitants. The inner city is surrounded by the ancient Roman wall (still partly intact); the outer city is surrounded by a much more modern ring road. The city itself is partitioned by two rivers - the Ouse (pronounced “ooze”) and the Foss. There are numerous pleasant cafes, restaurants and pubs along the Ouse.

The city centre itself is small and definitely walkable - it is a centre for pedestrians and cyclists, with restrictions on car use. Beautiful sites in the city centre include the York Minster and the Museum Gardens, the latter of which features the ruins of St Mary’s Abbey. Next to the Gardens is King’s Manor (part of the University), which was originally the Abbot’s house. Right across from the Manor is the Theatre Royal. Close by you will find Clifford’s Tower (sometimes called the York Castle), which sits proudly at one of the highest points in the city centre. You may enjoy a visit to the Merchant Adventurer’s Hall, a guildhall, and Barley Hall, a town home dating from the 13th century. If you enjoy museums, you cannot do better than the National Railway Museum. The York Castle Museum features a recreation of a Victorian shopping street, and the Yorkshire Museum is dedicated to relics and discoveries from Yorkshire. Fairfax House is a spectacular Georgian townhouse right near Clifford’s Tower. You should also visit the ancient gates that guard the entrances to the city: Monkbar, Bootham Bar, Micklegate Bar and Walmgate Bar still stand to this day. You can visit most of these with a walk around the remains of the Roman city walls.

No visit to York would be complete without a trip to a pub or three. The city features pubs for all tastes and preferences, including several that specialise in real ales, and some that serve beers from the York Brewery, which is staggering distance from the York rail station. Of course, there is much more to see! Take the opportunity to explore!

CONFERENCES AND WORKSHOPS LOCATION

The conference will take place in the [Exhibition Centre](#) on the Heslington West campus. All keynotes, conferences and workshops will take place in this building, which is right next to the on-campus bed-and-breakfast accommodation, and is also within a 5-10 minute walk of bus stops on campus.

Address: Exhibition Centre, University of York, Heslington, York, YO10 5DD.

The registration desk will be located in the main hall of the Exhibition Centre, and will be open from around 0815-0830 on each day of the main conference, closing around 1600 each day.

WLAN AND INTERNET ACCESS

The conference venue (and indeed the entire University) provides wireless internet access.

- “Eduroam”: with your existing Eduroam credentials
- “York Conferences”: details will be provided with your registration pack (including a login and password).

PUBLIC TRANSPORTATION IN YORK

York is small and public transport is entirely via buses (which are comprehensive and frequent, if not entirely reliable), taxis, walking or cycling.

The two main bus companies in York are [First York](#) (which provides the most services) and [TransDev](#) (which operates the main bus route from the rail station to the University). Arriva also operates a few services. To get back and forth between the University and the city Centre, you can take either the [#44 bus](#) (TransDev) or the [#4 bus](#) (First York). Both serve multiple stops in the city centre, and go to the rail station (it takes around 15-20 minutes). The #44 is subsidised by the University and a ticket is only £2 return (£1.50 one way).

You can get a day ticket for use on any First York bus services for £3.70. Weekly tickets are also available (consult the First York website for up-to-

date prices). Tickets *are not interchangeable* between TransDev and First York, in general, but you can buy an “All York” day ticket for £4.50 from any driver. Tickets are purchased from the driver directly, as you board the bus. Tell the driver your destination (e.g., University) and they will tell you the price. You can typically expect bus drivers to make change for tickets, but you will probably get some unfriendly stares if you try to use a large note to buy a ticket! Try to use smaller notes or coins wherever possible.

Many bus stops will have real-time displays announcing when the next bus can be expected. Buses will be labelled by their *final* destination. So, for example, the #4 or #44 buses heading to the university from the city will be labelled “University” or “Sports Village”; the #44 back to the city will be labelled “Rail Station”, while the #4 will probably be labelled “Acomb”.

There are several bus stops at the University. For the Exhibition Centre, you should get off at either the Library stop or Heslington Hall; both are about a 5-10 minute walk from the Exhibition Centre or James College (where many of you are staying).

Buses in York normally run from around 0600-0630 until 2330-2400. Not all buses run that late (though the #4 and #44 typically do), so please do check on the relevant website before you make plans.

Longer-range buses (coaches) can take you further afield: indeed, they can take you right across the UK, if you are a glutton for punishment. More reasonably, you could sensibly take a bus to the North York Moors or Whitby (both are beautiful) - the [Yorkshire Coastliner](#) takes this route. Buses can also take you across the Yorkshire Dales, typically from Northallerton or nearby. If you want to hike in the Dales, you can even take a train to Skipton, and start hiking from there.

Taxis in York are reliable, generally reasonably priced (especially when compared with London!) and must be booked in advance unless you are picking up a taxi at a taxi rank (there are several in the city centre or at the rail station). Hotels will happily call a taxi for you. If you want to call one yourself, reputable taxi firms include Fleetways (01904 365365), 659 Cars (01904 659659), Streamline (01904 638833) and Station Taxis (01904 623332); many also allow you to book online.

FROM AND TO AIRPORTS

The nearest airport to York is [Leeds/Bradford International Airport](#). There is a bus service ([timetable and prices](#)) from this airport to Leeds rail station, where you can get a train to York (return ticket approximately £17).

The [International Airport at Manchester](#), although further away, has many more international flights (including to/from North America) and a rail service direct from the airport to York. Trains normally run up to every 30 minutes on weekdays, the journey takes approximately 1:45 hours, and a flexible return ticket costs approximately £35.

To travel to York from London [Heathrow](#) or [Gatwick](#), you must first make your way into the centre of London, to King's Cross train station. Either take the [Tube](#) (Piccadilly Line, direct to King's Cross, approximately 1 hour and currently £5.50 for a single ticket), or take the [Heathrow Express](#) to Paddington (approximately 15 minutes, and currently £34 for a return ticket purchased online), and then the Tube (e.g., Hammersmith line or Circle/District line) to King's Cross station. If you are coming from London Stansted (which is the home of many low-cost airlines), you can avoid London by taking a train from Stansted Airport to Peterborough, and then connect to an East Coast train up to York (this is the same train that runs from King's Cross) - in general, travelling via London is more expensive and may take longer.

To travel to York by Eurostar (from Paris or Brussels), you would first travel to London St Pancras Station (approximately 2.25-2.5h), walk across the street to London King's Cross station, then proceed as below.

York is served by regular fast trains from London King's Cross and Edinburgh (each about 2-2.25 hours by train), as well as good connections to Leeds, Doncaster (each about 25 minutes by train), Newcastle (about 50 minutes by train) and Manchester. See [National Rail Enquiries](#) for train times and prices.

If you are travelling from Manchester or Leeds, you need not book your train tickets in advance: you can buy a reasonably priced ticket on the day of travel. If you are travelling from London or Edinburgh, it is to your advantage to buy a ticket in advance, and to specify your times of travel.

For example, you can buy tickets through the [National Rail Enquiries](#) site which allows you to choose your best route. The site does take you through to the relevant train operator pages to purchase in advance and choose your preferred pick-up/delivery option (e.g., you can arrange to pick up your tickets at a station such as King's Cross).

When travelling by rail in the UK, do compare the cost of a return ticket with the cost of two single tickets; there are sometimes savings to be made either way. In almost all cases, purchasing tickets in advance will be significantly cheaper than purchasing them immediately before your journey.

The University of York is within 30 minutes' walk of the city centre, and as mentioned earlier, is served by the [FirstYork 4](#) bus and the [44 Unibus](#) bus from York Railway Station. In general, a single ticket currently costs about £1.50 and a return ticket £2.00. A taxi journey between railway station and campus costs approximately £8.00.

To get to the Exhibition Centre, get off the bus on University road at the [stop](#) under the bridge, next to the library. Cross over the road and chicken continue forward towards the University lake where you will see signs for the Physics and Electronics Departments located at the other side of the lake, there you will find the Exhibition Centre.

There is very limited Pay and Display car parking on campus.

RESTAURANTS AND PUBS

York has a wealth of restaurants and pubs to suit all tastes, preferences and dietary restrictions. You can find all sorts of restaurant reviews and recommendations on TripAdvisor or Visit York's website. Some of our favourites are listed below. If you are in a larger group, you may want to make a reservation, especially on Thursday or Friday evenings when many people are out and about in York!

- Melton's Too, Fossgate: a relaxed and informal restaurant with a nice bar downstairs, serving very local food. Includes an interesting tapas-style menu.

- El Piano, Grape Lane: vegan and vegetarian restaurant, Moroccan-style, tapas; also provides several gluten-free dishes.
- Akbar's, George Hudson Street: excellent south Indian cuisine.
- Mumbai Lounge, Walmgate: friendly Indian restaurant
- Red Chilli, George Hudson Street: first-rate Beijing/Sichuan dishes
- Café Concerto, High Petergate: small, very friendly family run, music-themed restaurant with excellent home-made desserts.
- Betty's, St Helen's Square: classic tea room, also serves breakfast, lunch and dinner (some Swiss-style dishes). Impeccable service, and great for people watching!
- Yak & Yeti, Goodramgate: small Nepalese restaurant, friendly service, excellent Gurkha food.
- Wagamama, Goodramgate: fresh noodle-based dishes and excellent dumplings. Caters to vegetarians and meat-eaters.
- Spring Espresso, Fossgate: if you like coffee, you have to try it from Spring. Just go for the espresso. It's superb.

There are more pubs in York than you can shake a stick at, and there are many in the city centre. Here are some favourites:

- The Deramore, Heslington Main Street: this is very close to the university campus (about a 10 minute walk), and serves excellent local beers and also has a good food menu.
- The Rook & Gaskill, Lawrence Street: just outside the city walls, near Walmgate Bar, a free house serving amazing beers.
- The Old White Swan, Goodramgate: an excellent and large pub, good beers and whiskeys, and very good food.
- The Duke of York, King's Square: a Leeds Brewery pub, fantastic local and imported beers.
- The Brigantes, Micklegate: this was York's first non-smoking pub, years before it was the law. Superb beers, especially imports.
- The York Tap, York Rail Station: a great pub at the station? Yes, really. The beer selection is fantastic.
- The Black Swan, Peasholme Green: one of York's oldest pubs. Live music on Thursdays upstairs.
- The Last Drop Inn, Petergate: A York Brewery pub. The beer travels around 500 metres to get here.

CONFERENCES

INTERNATIONAL CONFERENCE ON MODEL TRANSFORMATION (ICMT)

Model transformation encompasses a variety of technical spaces, including modelware, grammarware, dataware, and ontoware, a variety of model representations, e.g., based on different types of graphs, and a variety of transformation paradigms including rule-based transformations, term rewriting, and manipulations of objects in general-purpose programming languages, to mention just a few.

The study of model transformation includes foundations, structuring mechanisms, and properties, such as modularity, composability, and parameterization of transformations, transformation languages, techniques, and tools. To achieve impact on software engineering in general, methodologies and tools are required to integrate model transformation into existing development environments and processes.

ICMT is the premier forum for researchers and practitioners from all areas of model transformation. This year's edition will feature, besides a full program of peer-reviewed papers, a keynote from Jean Bézivin.

Program Chairs: Dániel Varró and Davide di Ruscio

Web Chair: Philip Langer

Steering Committee:

Jean Bézivin

Jordi Cabot

Keith Duddy

Martin Gogolla

Jeff Gray

Zhenjiang Hu

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 Massimo Tisi
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 Antonio Vallecillo
 Mark Van Den Brand
 Pieter Van Gorp
 Hans Vangheluwe
 Gergely Varro
 Janis Voigtländer
 Edward Willink
 Manuel Wimmer
 Haiyan Zhao

INTERNATIONAL CONFERENCE ON TESTS & PROOFS (TAP)

TAP 2014 is the eighth event in a series of conferences devoted to the synergy of proofs and tests. Abandoning the traditional separation of formal verification and testing as orthogonal research fields, TAP aims at the identification of common grounds of the different research communities. In particular, both follow the goal to improve the quality of software and hardware, but with different means. Therefore, TAP provides a forum for the cross-fertilization of ideas and approaches from the formal verification community and the testing community in order to drop earlier dogmatic views on the incompatibility of proving and testing. TAP offers a meeting place for researchers who combine proofs and tests in an interdisciplinary manner by taking the best from both worlds.

We are very proud that TAP 2014 features a keynote by Ross Smith, director of Test for Skype. As well as the keynote and the accepted contributions, TAP also features an invited tutorial by Margus Veanes on “Symbolic Automata”, a toolkit for efficiently manipulating and analyzing regular expressions, symbolic finite automata and transducers, combining efficient representations of large concrete sets and symbolic reasoning.

Program Chairs: Martina Seidl and Nikolai Tillmann

Program Committee:

| | |
|--------------------|--------------------|
| Dirk Beyer | Jacques Julliand |
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Additional reviewers

| | |
|------------------|--------------------------|
| Baruzzo, Andrea | Guardini, Davide |
| Bill, Robert | Hilken, Frank |
| Bouquet, Fabrice | Kääramees, Marko |
| Bubel, Richard | Lackner, Hartmut |
| Chai, Ming | Langelier, Guillaume |
| Dangl, Matthias | Nguena Timo, Omer Landry |
| Dury, Arnaud | Niemann, Philipp |
| Gerlach, Jens | Ulbrich, Mattias |

INTERNATIONAL CONFERENCE ON GRAPH TRANSFORMATION (ICGT)

ICGT 2014 is the Seventh International Conference on Graph Transformation held on July 22-24, 2014 in York. It continues the series of conferences previously held in Barcelona (Spain) in 2002, Rome (Italy) in 2004, Natal (Brazil) in 2006, Leicester (UK) in 2008, Enschede (The Netherlands) in 2010, and in Bremen (Germany) in 2012, following a series of six International Workshops on Graph Grammars and Their Application to Computer Science from 1978 to 1998.

Dynamic structures are a major cause for complexity when it comes to model and reason about systems. They occur in software architectures, configurations of artefacts such as code or models, pointer structures, databases, networks, etc. As interrelated elements, which may be added, removed, or change state, they form a fundamental modeling paradigm as well as a means to formalize and analyse systems. Applications include architectural reconfigurations, model transformations, refactoring, and evolution of a wide range of artefacts, where change can happen either at design or at run time. Dynamic structures occur also as part of semantic domains or computational model for formal modelling languages.

Based on the observation that all these approaches rely on very similar notions of graphs and graph transformations, theory and applications of graphs, graph grammars and graph transformation systems have been studied in our community for more than 40 years. The conference aims at fostering interaction within this community as well as attracting researchers from other areas to join us, either in contributing to the theory of graph transformation or by applying graph transformations to already known or novel areas, such as self-adaptive systems, overlay structures in cloud or P2P computing, advanced computational models for DNA computing, etc.

Program Chairs: Holger Giese and Barbara Koenig

Publicity Chair: Leen Lambers

Program Committee

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Paolo Bottoni

Andrea Corradini

Juan de Lara

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Detlef Plump

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Leila Ribeiro

Andy Schürr

Pawel Sobocinski

Gabriele Taentzer

Pieter Van Gorp

Dániel Varró

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EUROPEAN CONFERENCE ON MODELING (ECMFA)

The European Conference on Modelling Foundations and Applications (ECMFA) is a premier conference dedicated to advancing the state of knowledge in the area of Model-Driven Engineering (MDE) - a paradigm based on the use of models for the specification, design, analysis, synthesis, deployment, testing, and maintenance of complex systems. MDE relies on exploiting models and automation to achieve significant boosts in development productivity and quality. In the past 9 years, ECMFA has provided a venue for interaction among researchers and practitioners interested in MDE. The conference engages the key figures from industry and academia in a dialog which results in stronger and more effective practical application of MDE, hence producing more robust software based on state-of-the-art research results.

Research results presented covered a wide spectrum of MDE topics, including model provenance, model transformations and code generation, model synthesis, model-driven testing, formal modeling approaches, business process modeling, usability of models and more.

Program Chairs: Jordi Cabot and Julia Rubin

Publicity Chair: Stephen Kell

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Juan Manuel Vara
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Claas Wilke
Manuel Wimmer
Tao Yue
Steffen Zschaler

WORKSHOPS AND SATELLITE EVENTS

TRANSFORMATION TOOL CONTEST (TTC)

The 2014 Transformation Tool Contest (TTC) will compare the expressiveness, the usability and the performance of graph, model and program transformation tools via three case studies. A deeper understanding of the relative merits of different tool features will help to further improve transformation tools and to indicate open problems. This year, TTC seeks your participation to **assess** solutions to two challenging transformation problems, involving transforming financial XML models into object-oriented code, and transforming the very large model that underpins the IMDb movie database. Additionally, a live transformation contest (on an unseen problem) will be announced during STAF, and we seek your participate to **solve** this problem with your favourite transformation tool. Start your engines!

Organizing Committee: Christian Krause, Louis Rose and Tassilo Horn

Steering Committee:

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Pieter Van Gorp
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Program Committee:

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Pieter Van Gorp

Gergely Varro

Bernhard Westfechtel

Albert Zundorf

BIG MDE

As Model Driven Engineering (MDE) is increasingly applied to larger and more complex systems, the current generation of modelling and model management technologies are being pushed to their limits in terms of capacity and efficiency. As such, additional research and development is imperative in order to enable MDE to remain relevant with industrial practice and to continue delivering its widely-recognised productivity, quality, and maintainability benefits. The aim of BigMDE is to provide a venue where developers and users of modelling and model management languages and tools can present problems and solutions related to topics such as: working with large models; collaborative modelling (version control, collaborative editing); transformation and validation of large models; model fragmentation and modularity mechanisms; efficient model persistence and retrieval; models and model transformations on the cloud; visualization techniques for large models.

Organising Committee

Dimitris Kolovos

Davide Di Ruscio

Nicholas Matragkas

Juan De Lara

Istvan Rath

Massimo Tisi

Programme Committee

Marco Brambilla
Jesus Sanchez Cuadrado
Marcos Didonet Del Fabro
Tihamer Levendovszky
Jesus J. Garcia Molina
Alfonso Pierantonio
Esther Guerra

Markus Scheidgen
Salvador Trujillo
Daniel Varro
Marko Boger
Ed Willink
Tony Clark
Gerson Sunye

STAF DOCTORAL SYMPOSIUM (DOCSYMP)

The STAF Doctoral Symposium is aimed at providing mentoring and feedback to PhD students working in the areas covered by Software Technologies: Applications and Foundations 2014. Areas of interest include:

- Graph transformation
- Model transformation
- Model-Based Engineering
- Software testing
- Program verification

and in general any topic of interest for the conferences that will take place within STAF 2014. Speakers will be asked to give a short presentation, followed by discussion and feedback. There will also be ample time for informal discussion during the day. Our aim is to stimulate discussion and help PhD students refine their work.

Organising Committee:

Phil Brooke
Andrea Corradini

Mike Dodds
Harald Storrle

VERIFICATION OF MODEL TRANSFORMATION (VOLT)

VOLT provides researchers with a dedicated forum to classify, discuss, propose, and advance verification techniques dedicated to model transformations. The workshop promotes discussions between theoreticians and practitioners from the academia and industry, given its ideal co-location with STAF. A significant part of the workshop includes a forum for discussing

practical applications of model transformations and related problems. One of the goals of the forum is to collect enough industrial case studies so that those problems can be stated at a theoretical level. Topics of interest include:

- Application of formal verification, theorem proving, model checking or testing to model transformation
- Verification techniques dedicated to model transformation
- Taxonomies of techniques for model transformation verification
- Properties relevant to specific model transformations
- Verification of model transformations expressed in languages such as: ATL, QVT, TGG, VIATRA, Kermeta, Epsilon, etc.
- Verification of domain-specific model transformations, in contrast to general-purpose transformations
- Case studies and experience reports
- Tools and automation

Organizers:

Moussa Amrani
Eugene Syriani

Manuel Wimmer

Program Committee:

Márk Asztalos
Didier Buchs
Marsha Chechik
Antonio Cicchetti
Benoit Combemale
Michalis Famelis
Holger Giese
Martin Gogolla
Jeff Gray
Esther Guerra
Frank Hermann
Akram Idani

Marouane Kessentini
Dimitris Kolovos
Leen Lambers
Kevin Lano
Tihamér Levendovsky
Levi Lúcio
Arend Rensink
Rick Salay
Martina Seidl
Antonio Vallecillo
Hans Vangheluwe
Daniel Varro

BM-FA - 6TH WORKSHOP ON BEHAVIOURAL MODELLING - FOUNDATIONS AND APPLICATIONS

The workshop on Behaviour Modelling - Foundations and Applications attracts attention to the role of behaviour modelling. In the domain of Business Process Management behaviour models have been successfully used for over 20 years. The growing importance of service-orientation and business process management increases the role of behaviour modelling for all activities of the system life cycle. Behaviour modelling can contribute to quality of applications in a huge domain from embedded systems, to logistic systems, case management solutions and systems of communicating services. The aim of BM-FA is to explore the possibilities and advantages of the practical use of behaviour models for MDA.

Organizers:

Ella Roubtsova
Ashley McNeile
Ekkart Kindler

Christian Gerth
Mehmet Aksit

Programme Committee:

Moussa Amrani
Joao Paulo Barros
Behzad Bordbar
Ghizlane El Boussaidi
Joao M. Fernandes
Luis Gomes
Reiko Heckel
Marco Konersmann
Levi Lucio

Ashley McNeile
Artem Polyvyanyy
Michel Reniers
Bernhard Rumpe
Javier Troya
Antonio Vallecillo
Matthias Weidlich
Gefei Zhang

GCM - 5TH INTERNATIONAL WORKSHOP ON GRAPH COMPUTATION MODELS

The aim of GCM is to bring together researchers interested in all aspects of computation models based on graphs and graph transformation techniques. It promotes the cross-fertilizing exchange of ideas and experiences among researchers and students from the different communities interested in the

foundations, applications, and implementations of graph computation models and related areas. Previous editions of GCM series were held in Natal, Brazil (GCM 2006), in Leicester, UK (GCM 2008), in Enschede, The Netherlands (GCM 2010) and in Bremen, Germany (GCM 2012).

Organizers: Rachid Echahed and Annegret Habel

GRABATS - 8TH INTERNATIONAL WORKSHOP ON GRAPH-BASED TOOLS

The 8th International Workshop on Graph Based Tools is the continuation of the GraBaTs series of workshops which provides a forum for researchers and practitioners interested in the development and application of graph-based tools. Based on rigorous mathematical concepts, graphs are at the core of tools and techniques in various application areas and are used for many practical concerns Topics of interest include (but are not limited to):

- Model-driven development tools,
- Meta modeling tools, generators and frameworks,
- Visual language tools (UML, Domain-specific languages, etc.)
- Model transformation and model management tools,
- Formal graph-based modeling tools,
- Visualization, animation and simulation tools,
- Analysis of models, transformations and programs (validation, verification, static analysis, quantitative analysis, testing, etc.),
- Tool integration techniques,
- Software engineering and software evolution tools,
- Efficient algorithms for graph models (pattern matching, handling of large graph models, graph traversal algorithms, etc.)

The purpose of this workshop is to survey the state of the art of graph-based tools, bring together developers of graph-based tools in different application fields, and encourage new tool development collaborations.

Organizers: Matthias Tichy and Bernhard Westfechtel

Programme Committee:

Artur Boronat

Claudia Ermel

Joel Greenyer

Esther Guerra

Dimitris Kolovos

Christian Krause

Tihamer Levendovszky

Mark Minas

Arend Rensink

Gabriele Taentzer

Matthias Tichy

Pieter Van Gorp

Hans Vangheluwe

Gergely Varró

Bernhard Westfechtel

Andreas Winter

Albert Zündorf

MORSE - 1ST WORKSHOP ON MODEL-DRIVEN ROBOT SOFTWARE ENGINEERING

With the advent of standard hardware/software platforms for robots and the dynamics with which software ecosystems and App Stores develop in application markets, the following research topics arise in the overlap of Software Engineering and Robotics:

- Model-Driven Software Development for robotic systems
- Software and app reuse for robotics
- End-user app development
- The compliance to legal and safety constraints
- Total cost of ownership

Model-based engineering helps to design and develop complex systems by automating the development process concentrating on different levels of abstraction. With the advances in the robotic research communities and the increasing complexity of application scenarios for future robotic systems, model-driven techniques must be established to improve the quality (e.g., re-usability, reliability, maintainability) of the developed systems. Therefore, there is a need for a new paradigm of software and system development for robots. This suggests establishing a new joint community of researchers from robotics and software engineering.

Organisers: Uwe Aßmann and Gerd Wagner

Programme Committee:

Colin Atkinson

Hans-Joachim Böhme

Kerstin Eder

Frank J. Furrer

Sebastian Götz

Sven Hellbach

Bernhard Jung

Alexander Jungmann

Jens Knoop

Florian Niebling

Christian Piechnick

Sebastian Richly

Ina Schäfer

Dietmar Schreiner

MT² - MUTATION TESTING AND MODEL TRANSFORMATION

Mutation testing is a fault-based verification technique, which is most often applied to assess the efficacy of test sets. Mutation testing is widely used in software testing research for evaluating testing techniques, and is increasingly used for testing artefacts other than source code. Mutation testing involves seeding faults into a system-under-test and observing the extent to which the faults are detected by a test set. The Mutation Testing and Model Transformation (MT²) workshop will identify how mutation testing and model transformation could be used together, using a highly interactive format in the spirit of a Schloss Dagstuhl seminar. The workshop will comprise mini-tutorials on mutation testing and on model transformation; position statements from participants; and then opportunities to discuss and develop the following and other topics:

- The design of effective mutation operators for model transformation languages, and other domain-specific programming languages.
- The use of model transformation for specifying and applying program transformations (e.g., creating mutants, testability transformation).
- The role of mutation testing at runtime, particularly for domain-specific (modelling) languages.
- Using model transformation to reason about program evolution and its impact on any subsequent mutation testing.
- Practical applications that are low-hanging and could be good tests of the potential synergies between mutation testing and model transformation

Organisers: Louis Rose, Rob Alexander and John Clark

VAO - 2ND WORKSHOP ON VIEW-BASED, ASPECT-ORIENTED AND ORTHOGRAPHIC SOFTWARE MODELLING

The goal of VAO is to bring together researchers and practitioners with an interest in model-driven software development to foster a fruitful cross-pollination of ideas between different communities dealing with the separation and integration of views or concerns in system modelling. The workshop will prepare the development of a case-study designed to facilitate the comparison and evaluation of multi-view modelling approaches and to simplify the identification of problems that require further research. In break-out sessions requirements for a common, multi-view modelling case-study will be elicited, possible comparison criteria will be collected, and ideas for case-study scenarios will be discussed. Topics of interest include:

- Bridging the gap between different views or metamodels,
- Generating, defining and evolving different views, models and metamodels,
- Round-trip engineering and co-evolution of different models,
- Composition of different views, models and metamodels,
- (Bidirectional) Transformations of metamodels,
- Avoiding inconsistencies, overlap and redundancies between modelling artefacts,
- Generating models and metamodels for multiple views or formalisms,
- Separating and re-integrating cross-cutting concerns or model weaving,
- Dynamic information hiding for partial views

Organisers:

Colin Atkinson
Erik Burger

Thomas Goldschmidt
Ralf Reussner

Programme Committee

Omar Alam

Olivier Barais

Steffen Becker

Franck Fleurey

Jacques Klein

Bernhard Rumpe

Guido Wachsmuth

Antonio Vallecillo

Markus Völter

Steffen Zschaler

CONFERENCE PROGRAMME

MONDAY

9:00-10:30

**STAF
Kickoff
(PX001)**

Welcome

STAF Keynote: Bertrand Meyer (ETH Zurich)

Agile! The Good, the Hype and the Ugly

10:30-11:00

Coffee break

11:00-12:30

**DocSym
(PT007)**

Explicit Modelling of Model Debugging and Experimentation

Simon Van Mierlo

Model-Driven Security with Modularity and Reusability for Secure Systems Development

Phu H. Nguyen

Precise Requirements Engineering for Model Transformations

Sobhan Yassipour Tehrani and Kevin Lano

**GCM
(PL002)**

Invited Talk: On the notion of graphs in graph theory and graph transformation

Gabriele Täntzer

Graph Transformation with Symbolic Attributes via Monadic Coalgebra Homomorphisms

Wolfram Kahl

**VOLT
(PL006)**

Welcome & Introduction

Checking Transformation Model Properties with a UML and OCL Model Validator

Martin Gogolla, Lars Hamann and Frank Hilken

Language-independent model transformation verification

Kevin Lano, Shekoufeh Kolaoudouz Rahimi and Tony Clark

Null considered harmful (for transformation verification)

Kevin Lano

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| 14:00-15:30 | |
| ICMT+ (PX001) | ICMT Keynote: Jean Bezin (Universite de Nantes) Software Modeling and the Future of Engineering |
| GCM (PL002) *** NB: GCM starts at 1330 *** | An interaction net encoding of Goedel's System T Ian Mackie, Shinya Sato |
| | Graph Isomorphism and Edge Graph Isomorphism Edel Sherratt |
| | Towards distributed bigraphical reactive systems Alessio Mansutti, Marco Peressotti, Marino Miculan |
| | A Unification Algorithm for GP Ivaylo Hristakiev, Detlef Plump |
| DocSym (PT007) | A Co-Evolution Approach for Component-Based Software Architecture and Source Code Michael Langhammer |
| | Scalable Query Evaluation in the Cloud Gábor Szárnyas, István Ráth and Dániel Varró |
| | A low-level language for interaction nets Shinya Sato |
| 15:30-16:00 | |
| | Coffee Break |
| 16:00-18:00 | |
| ICMT (PL001) | On the Usage of TGGs for Automated Model Transformation Testing Martin Wieber, Anthony Anjorin and Andy Schürr |
| | A Search-based Test Data Generation Approach for Model Transformations Atif Aftab Jilani, Muhammad Zohaib Iqbal and Muhammad Uzair Khan |
| | Test Data Generation for Model Transformations Combining Partition and Constraint Analysis Carlos A. González and Jordi Cabot |
| | Testing MOFScript transformations with HandyMOF |

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| | Jokin García, Maider Azanza, Arantza Irastorza and Oscar Diaz |
| DocSym (PT007) | Refactoring Operational Smells within the Domain Name System Marwan Radwan and Reiko Heckel |
| | Verification of Well-structured Graph Transformation Systems Jan Stückrath |
| | Aligning Event Trace and BPMN 2.0 Model Hui Yan |
| | A Game Theoretic Approach to Support Negotiation Based on Feature Models Mohammed Alabdullatif and Reiko Heckel |
| GCM (PL002) | Invited Talk 2: Well-Structured Graph Transformation Systems Barbara König |
| | Properties of Petri Nets with Context-Free Structure Changes Nils Erik Flick, Björn Engelmann |
| | More on Graph Rewriting With Contextual Refinement Berthold Hoffmann |
| VOLT (PL006) | MocOCL: A Model Checker for CTL-Extended OCL Specifications Sebastian Gabmeyer, Robert Bill, Petra Kaufmann and Martina Seidl |
| | Towards Domain Completeness for Model Transformations Based on Triple Graph Grammars Nico Nachtigall, Frank Hermann, Benjamin Braatz and Thomas Engel |
| | Brainstorming & Summary |

TUESDAY

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| 9:00-10:30 | |
| ALL (PX001) | ICGT Keynote: Giorgio Delzanno (Universita Degli Studi Di Genova) Parameterized Verification and Model Checking for Distributed Broadcast Protocols |
| MT^2 (PL006) | Welcome (Louis Rose, Rob Alexander, John Clark) A Tutorial on Mutation Testing Gordon Fraser |

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| | <p>A Tutorial on Model Transformation James Williams</p> |
| <p>VAO (PT007)</p> | <p>Welcome</p> |
| | <p>Viewpoints and Views in Hardware Platform Modeling for Safe Deployment</p> <p>Uwe Pohlmann, Matthias Meyer, Andreas Dann and Christopher Brink</p> |
| | <p>Query-driven incremental synchronization of view models</p> <p>Csaba Debreceni, Ákos Horváth, Ábel Hegedüs, Zoltán Ujhelyi, István Ráth and Dániel Varró</p> |
| | <p>A View-based Approach Towards an Engineering Platform for Industrial Automation in the Cloud</p> <p>Thomas Goldschmidt</p> |
| | <p>Criteria for the Definition and Identification of Orthographic Views</p> <p>Christian Tunjic and Colin Atkinson</p> |
| 10:30-11:00 | |
| | Coffee break |
| 11:00-12:00 | |
| <p>ICMT and ICGT Joint Session (PL001)</p> | <p>A Taxonomic Space for Increasingly Symmetric Model Synchronization</p> <p>Zinovy Diskin, Arif Wider, Hamid Gholizadeh and Krzysztof Czarnecki</p> |
| | <p>Correctness of Incremental Model Synchronization with Triple Graph Grammars</p> <p>Fernando Orejas and Elvira Pino</p> |
| | <p>Towards A Language To Express Design Patterns for Graph-Based Model Transformation</p> <p>Huseyin Ergin and Eugene Syriani</p> |
| <p>MT^2 (PL006)</p> | <p>Position Statement Presentations</p> |
| <p>BMFA (PL005)</p> | <p>BPMN Formalization and Verification using Maude</p> <p>Nissreen El-Saber and Artur Boronat</p> |

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| | <p>A Set of Metrics for States and Transitions in UML State Machines</p> <p>Gefei Zhang and Matthias Hölz</p> |
| <p>VAO (PT007)</p> | <p>A Method for Aspect-oriented Meta-Model Evolution</p> <p>Reiner Jung, Robert Heinrich, Eric Schmieders, Misha Strittmatter and Wilhelm Hasselbring</p> |
| | <p>Model-Driven Security with A System of Aspect-Oriented Security Design Patterns</p> <p>Phu H. Nguyen, Jacques Klein and Yves Le Traon</p> |
| | <p>Towards Constraint-Based Model Types: A Generalised Formal Foundation for Model Genericity</p> <p>Steffen Zschaler</p> |
| <p>12:30-14:00</p> | |
| | <p>Lunch</p> |
| <p>14:00-15:30</p> | |
| <p>ICMT and ICGT Joint Session (PL001)</p> | <p>Synchronization of Models of Large Meta-Models with Triple Graph Grammars: an Experience Report</p> <p>Dominique Blouin, Alain Plantec, Frank Singhoff, Pierre Dissaux and Jean-Philippe Diguët</p> |
| | <p>Triple Graph Grammars in the Large for Translating Satellite Procedures</p> <p>Frank Hermann, Susann Gottmann, Nico Nachtigall, Hartmut Ehrig, Benjamin Braatz, Gianluigi Morelli, Alain Pierre, Thomas Engel and Claudia Ermel</p> |
| | <p>Developing eMoflon with eMoflon</p> <p>Erhan Leblebici, Anthony Anjorin and Andy Schürr</p> |
| <p>MT^2 (PL006)</p> | <p>Roundtable discussion of opportunities and issues</p> <p>Setup of discussion groups</p> |
| <p>BMFA (PL005)</p> | <p>The Principle of Comprehensive Modelling Applied to Data and Behaviour</p> <p>Ashley McNeile</p> |

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| | Integrating Protocol Contracts with Java Code Marco Konersmann, Noyan Kurt, Michael Goedicke |
| | Implementation of Decision Modules Serguei Roubtsov and Ella Roubtsova |
| VAO (PT007) | A Multi-View Modelling Case Study: Component-Based Software Engineering with UML, Plug-ins, and Java Max E. Kramer and Michael Langhammer |
| | Discussion of Group Topics |
| | Discussion in break-out groups |
| 15:30-16:00 | |
| | Coffee Break |
| 16:00-18:00 | |
| ICGT (PL002) | Tableau-based Reasoning for Graph Properties Leen Lambers and Fernando Orejas |
| | Generating Abstract Graph-Based Procedure Summaries for Pointer Programs Christina Jansen and Thomas Noll |
| | Verifying Monadic Second-Order Properties of Graph Programs Christopher M. Poskitt and Detlef Plump |
| ICMT (PL001) | ChainTracker: a model-transformation trace analysis tool for code-generation environments Victor Guana and Eleni Stroulia |
| | Tracing Program Transformations with String Origins Pablo Inostroza, Tijs van der Storm and Sebastian Erdweg |
| | Transformation of UML and OCL Models into Filmstrip Models Frank Hilken, Lars Hamann and Martin Gogolla |
| | Reverse Engineering of Model Transformations for Reusability |

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| | Jesús Sánchez Cuadrado, Esther Guerra and Juan De Lara |
| MT^2 (PL006) | Group discussions Report back |
| BMFA (PL005) | Behavior Modeling with Interaction Diagrams in a UML and OCL Tool Martin Gogolla, Lars Hamann, Frank Hilken, Matthias Sedlmeier, Quang Dung Nguyen |
| | Behaviour Models Clarify Definitions of Affordance and Capability Vaughan Michell and Ella Roubtsova |
| | A Task of Behaviour Modelling in Execution Context Michael Poulin |
| VAO (PT007) | Group Presentations |
| | Open discussion |
| | Goodbye |
| 19:00 - | |
| | Welcome Reception - Exhibition Centre |

WEDNESDAY

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|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 9:00-10:30 | |
| ALL (PX001) | Welcome and ECMFA Keynote: Marsha Chechik (University of Toronto) Explicating and Reasoning with Model Uncertainty |
| 10:30-11:00 | |
| | Coffee break |
| 11:00-12:30 | |
| ECMFA (PL001) | Identifying and Visualising Commonality and Variability in Model Variants Jabier Martinez, Tewfik Ziadi, Jacques Klein and Yves Le Traon |
| | A MOF-based Framework for Defining Metrics to Measure the Quality of Models Tao Yue and Shaukat Ali |
| | Alloy4SPV: a Formal Framework for Software Process Verification |

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| | Yoann Laurent, Reda Bendraou, Souheib Baarir and Marie-Pierre Gervais |
| ICGT+ICMT Joint Session (PL002) | From Core OCL Invariants to Nested Graph Constraints Thorsten Arendt, Annegret Habel, Hendrik Radke and Gabriele Taentzer |
| | Specification and Verification of Graph-Based Model Transformation Properties Gehan M. K. Selim, Levi Lucio, James R. Cordy, Juergen Dingel and Bentley J. Oakes |
| | A Static Analysis of Non-Confluent Triple Graph Grammars for Efficient Model Transformation Anthony Anjorin, Erhan Leblebici, Andy Schürr and Gabriele Taentzer |
| 12:30-14:00 | |
| | Lunch |
| 14:00-15:30 | |
| ECMFA (PL001) | Efficient Model Synchronization with View Triple Graph Grammars Anthony Anjorin, Sebastian Rose, Frederik Deckwerth and Andy Schürr |
| | Normalizing Heterogeneous Service Description Models with Generated QVT Transformations Simon Schwichtenberg, Christian Gerth, Zille Huma and Gregor Engels |
| | Towards Scalable Querying of Large-Scale Models Konstantinos Bampis and Dimitris Kolovos |
| ICGT (PL002) | Transformation and Refinement of Rigid Structures Vincent Danos, Reiko Heckel and Pawel Sobocinski |
| | Reversible Sesqui-Pushout Rewriting for NACs Vincent Danos, Tobias Heindel, Ricardo Honorato-Zimmer and Sandro Stucki |
| | Pushouts in Computational Systems Biology Jonathan Hayman and Tobias Heindel |
| 15:30-16:00 | |
| | Coffee Break |

| 16:00-18:00 | |
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| ECMFA (PL001) | Language-Independent Traceability with Lässig Rolf-Helge Pfeiffer, Jan Reimann and Andrzej Wasowski |
| | OCLR: a More Expressive, Pattern-based Temporal Extension of OCL Wei Dou, Domenico Bianculli and Lionel Briand |
| | Level-Agnostic Designation of Model Elements Colin Atkinson and Ralph Gerbig |
| | Interpretation of Linguistic Architecture Ralf Laemmel and Andrei Varanovich |
| ICGT (PL002) | The Subgraph Isomorphism Problem on a Class of Hyperedge Replacement Languages H.N. de Ridder and N. de Ridder |
| | Canonical Derivations with Negative Application Conditions Andrea Corradini and Reiko Heckel |
| | Van Kampen Squares for Graph Transformation Harald König, Michael Löwe, Christoph Schulz and Uwe Wolter |
| 19:00-23:00 | |
| | Banquet - National Railway Museum |

THURSDAY

| 9:00-10:30 | |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------|
| ALL (PX001) | Welcome and ECMFA Keynote (Industry Track): Darren Buttle (ETAS) Under the Hood: Model-Based Development in the Automotive Industry |
| 10:30-11:00 | |
| | Coffee break |
| 11:00-12:30 | |
| TAP | Model-Based Mutation Testing of an Industrial Measurement Device |

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|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (PL005) | Bernhard K. Aichernig, Jakob Auer, Elisabeth Jobstl, Robert Korosec, Willibald Krenn, Rupert Schlick, Birgit Vera Schmidt |
| | An Abstraction Technique for Testing Decomposable Systems by Model Checking Paolo Arcaini, Angelo Gargantini and Elvinia Riccobene |
| | How Test Generation Helps Software Specification and Deductive Verification (Short Paper) Guillaume Petiot, Nikolai Kosmatov, Alain Giorgetti and Jacques Julliand |
| | Test Execution for Faster Bounded Verification (Short Paper) Alexander Kampmann, Juan Galeotti and Andreas Zeller |
| ECMFA (PL001) | Neo4EMF, A Scalable Persistence Layer for EMF Models. <i>Amine Benelallam, Abel Gómez, Gerson Sunyé, Massimo Tisi, and David Launay</i> |
| | Towards an Infrastructure for Domain-Specific Languages in a Multi-domain Cloud Platform. <i>Thomas Goldschmidt</i> |
| | Experiences with Business Process Model and Notation for Modeling Integration Patterns. <i>Daniel Ritter</i> |
| ICGT (PL002) | Graph Transformation Meets Reversible Circuits: Generation, Evaluation, and Synthesis Hans-Joerg Kreowski, Sabine Kuske, Aaron Lye and Melanie Luderer |
| | Towards Stateful Process Mining with Graph Transformation Systems H.J. Sander Bruggink |
| | Jerboa: A Graph Transformation Library for Topology-Based Geometric Modeling Hakim Belhaouari, Agnès Arnould, Pascale Le Gall and Thomas Bellet |
| BigMDE (PL006) | Towards an open set of real-world benchmarks for model queries and transformations Amine Benelallam, Massimo Tisi, Istvan Rath, Benedek Izsó and Dimitris Kolovos |
| | MONDO-SAM: A Framework to Systematically Assess MDE Scalability Benedek Izsó, Gábor Szárnyas, István Ráth and Dániel Varró |

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| | Tool Support for Model Splitting using Information Retrieval and Model Crawling Techniques Daniel Strüber, Michael Lukaszczyk and Gabriele Taentzer |
| 12:30-14:00 | |
| | Lunch |
| 14:00-15:30 | |
| TAP (PL005) | Generating Classified Parallel Unit Tests Ali Jannesari, Nico Koprowski, Jochen Schimmel and Felix Wolf |
| | Lightweight State Capturing for Automated Testing of Multithreaded Programs Kari Kähkönen and Keijo Heljanko |
| | Generating Test Data from a UML Activity using the AMPL Interface for Constraint Solvers Felix Kurth, Sibylle Schupp and Stephan Weißleder |
| BigMDE (PL006) | Hypersonic: Model Analysis and Checking in the Cloud Vlad Acretoaie and Harald Störrle |
| | LinTraP: Primitive Operators for the Execution of Model Transformations with LinTra Loli Burgueño, Eugene Syriani, Manuel Wimmer, Jeff Gray and Antonio Vallecillo |
| | Automated Analysis, Validation and Suboptimal Code Detection in Model Management Programs Ran Wei and Dimitris Kolovos |
| 15:30-16:00 | |
| | Coffee Break |
| 16:00-18:00 | |
| TAP (PL005) | Explicit Assumptions - A Prenup for Marrying Static and Dynamic Program Verification Johannes Kanig, Rod Chapman, Cyrille Comar, Jerome Guitton, Yannick Moy, Emyr Rees |
| | Quality Assurance in MBE Back and Forth (Tutorial) Sebastian Gabmeyer |

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|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ECMFA (PL001) | Towards the Systematic Construction of Domain-Specific Transformation Languages Jesús Sánchez Cuadrado, Esther Guerra and Juan De Lara |
| | Modular DSLs for flexible analysis: An e-Motions reimplementaion of Palladio Antonio Moreno-Delgado, Francisco Durán, Steffen Zschaler and Javier Troya |
| | A Family-based Framework for i-DSML Adaptation Samson Pierre, Eric Cariou, Olivier Le Goaer and Franck Barbier |
| | Sensor Data Visualisation: a Composition-based Approach to Support Domain Variability Ivan Logre, Sebastien Mosser, Philippe Collet and Michel Riveill |
| ICGT (PL002) | Generating Inductive Predicates for Symbolic Execution of Pointer-Manipulating Programs Christina Jansen, Florian Göbe and Thomas Noll |
| | Attribute Handling for Generating Preconditions from Graph Constraints Frederik Deckwerth and Gergely Varro |
| | Gothic Style and Informatics Manfred Nagl |
| BigMDE (PL006) | Improving memory efficiency for processing large-scale models Gwendal Daniel, Gerson Sunyé, Amine Benelallam and Massimo Tisi |
| | Discussion and wrap-up |
| 20:00-22:00 | |
| ICGT Dinner (organised informally) - ASK Italian | |

FRIDAY**9:00-10:30**

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| TTC (PT006) | TTC Welcome and Briefing |
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| TTC FIXML Track (PT007) | FunnyQT - Tassilo Horn <i>Filip Krikava et al.</i> <i>Horacio Hoyos et al.</i> |
| | SDMLib - Christoph Eickhoff et al. <i>Horacio Hoyos et al.</i> <i>Tassilo Horn</i> |
| | QVTR-XSLT - Dan Li et al. <i>Tassilo Horn</i> <i>Christoph Eickhoff et al.</i> |
| | HenshinTGG - Frank Hermann et al. <i>Christoph Eickhoff et al.</i> <i>Dan Li et al.</i> |
| | Rascal - Pablo Inostroza et al. <i>Dan Li et al.</i> <i>Frank Hermann et al.</i> |
| TTC Movie Database Track (PT006) | QVTo - Christopher Gerking et al. <i>Kevin Lano et al.</i> <i>Pablo Inostroza et al.</i> |
| | EMF-INCQUERY - Gabor Szarnyas et al. <i>Pablo Inostroza et al.</i> <i>Christopher Gerking et al.</i> |
| | e-Motions - Antonio Moreno-Delgado et al. <i>Christopher Gerking et al.</i> <i>Gabor Szarnyas et al.</i> |
| | GrGen.NET - Edgar Jakumeit <i>Gabor Szarnyas et al.</i> <i>Antonio Moreno-Delgado et al.</i> |
| | AToMPM - Huseyin Ergin et al. <i>Antonio Moreno-Delgado et al.</i> <i>Edgar Jakumeit</i> |
| TAP (PL005) | Keynote: Ross Smith (Director of Test, Skype) |
| 10:30-11:00 | |
| | Coffee break |
| 11:00-12:30 | |
| TTC FIXML Track | Aspectual Code Generators - Steffen Zschaler et al. <i>Frank Hermann et al.</i> <i>Pablo Inostroza et al.</i> |

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| (PT007) | Umple - Vahdat Abdelzad et al. <i>Pablo Inostroza et al.</i> <i>Steffen Zschaler et al.</i> |
| | eMoflon - Geza Kulcsar et al. <i>Steffen Zschaler et al.</i> <i>Vahdat Abdelzad et al.</i> |
| | SIGMA - Filip Krikava et al. <i>Vahdat Abdelzad et al.</i> <i>Geza Kulcsar et al.</i> |
| | Epsilon - Horacio Hoyos et al. <i>Geza Kulcsar et al.</i> <i>Filip Krikava et al.</i> |
| TTC Movie Database Track (PT006) | FunnyQT - Tassilo Horn <i>Edgar Jakumeit</i> <i>Huseyin Ergin et al.</i> |
| | SDMLib - Christoph Eickhoff et al. <i>Huseyin Ergin et al.</i> <i>Tassilo Horn</i> |
| | UML-RSDS - Kevin Lano et al. <i>Tassilo Horn</i> <i>Christoph Eickhoff et al.</i> |
| | Rascal - Pablo Inostroza et al. <i>Christoph Eickhoff et al.</i> <i>Kevin Lano et al.</i> |
| TAP (PL005) | Behaviour Driven Development for Tests and Verification Melanie Diepenbeck, Ulrich Kühne, Mathias Soeken and Rolf Drechsler |
| | Filmstripping and Unrolling: A Comparison of Verification Approaches for UML and OCL Behavioral Models Frank Hilken, Philipp Niemann, Martin Gogolla and Robert Wille |
| | An All-in-one Toolkit for Automated White-Box Testing (Short Paper) Sebastien Bardin, Omar Chebaro, Mickael Delahaye and Nikolai Kosmatov |
| | A Case Study on Verification of a Cloud Hypervisor by Proof and Structural Testing(Short Paper) Nikolai Kosmatov, Matthieu Lemerre and Céline Alec |
| GraBats | Invited Talk: Observing Stochastic Graph Transformation Systems: A new testing ground for GraBaTs |

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| (PL002) | Tobias Heindel |
| | Non-Deterministic Matching Algorithm for Net Transformations Julia Padberg and Mathias Blumreiter |
| 12:30-14:00 | |
| | Lunch |
| 14:00-15:30 | |
| TTC Live Contest (PT006/PT007) | |
| TAP (PL005) | Computing with an SMT solver Nada Amin, Rustan Leino and Tiark Rompf |
| | Symbolic Automata (Invited Tutorial) Margus Veanes |
| GraBats (PL002) *** NB: GraBats starts at 1330 *** | Realization and extension of the Xfrog approach for plant modelling in the graph-grammar based language XL Michael Henke, Ole Kniemeyer and Winfried Kurth |
| | Rapid Prototyping of Topology Control Algorithms by Graph Transformation Géza Kulcsár, Michael Stein, Immanuel Schweizer, Gergely Varró, Max Mühlhäuser and Andy Schürr |
| | A Modular and Statically Typed Effectful Stack for Custom Graph Traversals Norbert Tausch and Michael Philippsen |
| | Towards Model Checking Reconfigurable Petri Nets using Maude Julia Padberg and Alexander Schulz |
| 15:30-16:00 | |
| | Coffee Break |
| 16:00-17:00 | |
| TTC Live Contest (PT006/PT007) | |

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| TAP (PL005) | Visualizing Unbounded Symbolic Execution Martin Hentschel, Reiner Hähnle and Richard Bubel |
| | Runtime Assertion Checking and its Combinations with Static and Dynamic Analyses (Tutorial) Nikolai Kosmatov and Julien Signoles |
| 17:00-17:30 | |
| TTC (PT006) | Scoring and Prize Announcements |

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| General Chair: | Richard Paige (University of York, UK) |
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