

A photograph of the main building of Lund University in Sweden, featuring a large fountain in the foreground with a statue on top. The building is white with classical architectural elements like columns and arches. Two Swedish flags are flying on tall poles in front of the building. The sky is clear and blue. In the foreground, there are colorful tulips in various shades of pink, white, and orange.

# FRAMily Meeting and workshop 2024

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3-5 June 2024

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LUND University, Sweden

Agenda

## Monday 3<sup>rd</sup> of June 2024

### Classicum

**Pufendorf Institute for Advanced Studies,**

Biskopsgatan 3, 223 50 Lund Lund

| Time and location | Session & Presentation name   | Tutor                                 | Session Chair |
|-------------------|---|---------------------------------------|---------------|
| 12:30 – 13:30     | Lunch (and registration)  |                                       |               |
| 13:30 – 14:20     | Intro to FRAM elements: functions, aspects, couplings, and modelling basics | Arie Adriaensen<br>Riccardo Patriarca | David Slater  |
| 14:20 – 14:30     | Coffee Break  |                                       |               |
| 14:30 – 15:30     | Guided modelling exercise   | Arie Adriaensen<br>Riccardo Patriarca | David Slater  |

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|-------|--|--|
| 16:15 | European Spallation Source (ESS) visit |  |
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|-----------------|--|---------------------------------------|--------------|
| After ESS visit | Tutorial continued - Informal FRAM modelling and Q&A while eating Tapas together (at own expenses) | Arie Adriaensen<br>Riccardo Patriarca | David Slater |
|-----------------|--|---------------------------------------|--------------|

**Tuesday 4th of June 2024**

**FRAMily 2024**

**Gustafscenen, AF Borgen, Sandgatan 2, 223 50 Lund**

| Time          | <b>Welcome and Introduction</b>  | Presenter                           | Session Chair(s) |
|---------------|--|-------------------------------------|------------------|
| 08:15 - 09:00 | Registration and Welcome Coffee  |                                     |                  |
| 09:00 - 09:15 | Introduction   | David Slater                        |                  |
| 09:15 - 09:45 | Keynote 4 <sup>th</sup> June   | Ralph MacKinnon                     | David Slater     |
| 09:45 - 10:45 | <b>Planning a FRAM Study</b>   |                                     | Rogier Woltjer   |
|               | FRAM and Change Management. (Abstract F8)  | Jeanette Hounsgaard                 |                  |
|               | Navigating cancer care pathway: exploring patient and practitioner perspectives for early detection using FRAM (Abstract F4) | Mariam Safi, Bettina Ravnborg Thude |                  |
|               | Talking Heads discussion   |                                     |                  |

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| 10:45 – 11:15<br>Coffee Break |
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| 11:15 - 12:30 | <b>FRAM Simulation</b>   |  | David Slater |
|---------------|--|--|--------------|
|               | A proposal of simulation model for FRAM based on the concept of Petri nets (Abstract F2)   | Kyosuke Takahashi, Hitoshi Inomo, Terutoshi Tomotoki |              |
|               | Dynamic Variability Modelling: Why? How? And where to next? (Abstract F9)  | Doug Smith   |              |
|               | Scoping the FRAM: Utilizing Machine Learning to Augment Qualitative Methods in Investigation of An Aviation Near-Miss (Abstract F17) | James Norman, Riana Steen, Riccardo Patriarca        |              |
|               | Talking Heads discussion   |  |              |

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| 12:30 – 13:30<br>Lunch |
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|---------------|--|---|--------------------|
| 13:30 – 15:00 | <b>FRAM Method Quantification</b>  |   | Riccardo Patriarca |
|               | Teleoperated Driving: Emergent system behaviours modelled by FRAM using the metadata in FMV (Abstract F11) | Niklas Grabbe   |                    |
|               | Adding Resilience to Hospital Bed Allocation, using FRAM Machine Learning (MOVE) (Abstract F12)            | Hideki Nomoto,<br>Ralph MacKinnon,<br>Rees Hill, David Slater |                    |
|               | Risk assessment of scaffolding operations using FRAM with semi-quantitative methods (Abstract F14)         | Terutoshi Tomotoki, Hitoshi Inomo,<br>Kyosuke Takahashi       |                    |
|               | Talking Heads Discussion   |   |                    |

15:00 – 15:30  
Coffee Break

|               |   |   |                 |
|---------------|---|---|-----------------|
| 15:30 - 17:00 | <b>FRAM Metadata and CPC</b>  |   | Arie Adriaensen |
|               | The role of FRAM in enhancing human-centric and resilient production (Abstract F3)                              | Naruki Yasue,<br>Tetsuo Sawaragi  |                 |
|               | FRAM modelling for enhanced operational resilience in space mission toward autonomous operations (Abstract F10) | Shoita Iino,<br>Hideki Nomoto,<br>Takayuki Hirose,<br>Yasutaka Michiura |                 |
|               | Talking Heads Discussion  |   |                 |

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| 17:00- 18:00 | FRAM tutorial – Exchanging the assignment results with the FRAM tutorial participant |
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18:00 – 22:00  
FRAMily 2024 Dinner

To be held at

**Nya Fest (at AF Borgen)  
2, Sandgatan, Lund**

**Wednesday 5<sup>th</sup> of June 2024**

**FRAMily 2024**

**Gustafscenen, AF Borgen, Sandgatan 2, 223 50 Lund**

| Time          | Session & Presentation name | Presenter                            | Session Chair(s) |
|---------------|-----------------------------|--------------------------------------|------------------|
| 08:15 - 09:00 | Pre-meeting coffee          |                                      |                  |
| 09:00 - 09:15 | Introduction Day 2          | David Slater                         |                  |
| 09:15 - 09:45 | Keynote                     | Riccardo Patriarca<br>Pedro Ferreira |                  |

| 09:45 - 10:45 | <b>FRAM Standard</b>  |   | Arie Adriaensen |
|---------------|---|---|-----------------|
|               | The delicate balance between efficiency and thoroughness in the removal of explosive charges - analysis of the blaster activities in the Onshore O&G Industry (Abstract F6) | Josue Maia Franca   |                 |
|               | Success Factor Analysis of Great Ship Captain Onboard Based on Ecological Approach (Abstract F13)   | Takayuki Hirose,<br>Hideki Nomoto,<br>Shoita Iino,<br>Yasutaka Michiura |                 |
|               | Talking Heads Discussion  |   |                 |

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| 10:45 – 11:15<br>Coffee Break |
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| 11:15 - 12:30 | <b>FRAM Extensions</b>  |  | Riccardo Patriarca |
|---------------|---|--|--------------------|
|               | Enhancing system resilience: integrating FRAM and RAG in practice (abstract F1)   | Mariam Safi,<br>Bettina Ravnborg<br>Thude  |                    |
|               | Integrating the FRAM and ethnography in nursing research: Insights from a project on complex care transitions (abstract F5) | Ann-There Hedqvist,<br>Gesä Praetorius,<br>Mirjam Ekstedt  |                    |
|               | Walking “randomly”: how to tract intractable FRAM models (Abstract F15)   | Francesco Simone,<br>Oriol Artime,<br>Tarcisio Abreu<br>Saurin, Flavio<br>Fogliatto, Riccardo<br>Patriarca |                    |
|               | Talking Heads Discussion  |  |                    |

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|------------------------|
| 12:30 – 13:30<br>Lunch |
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|---------------|---|---|----------------|
| 13:30 - 14:30 | <b><i>Making sense of FRAM outputs</i></b>  |   | Rogier Woltjer |
|               | The Probabilistic Interpretation of emerging behaviours in complex adaptive systems using FRAM (Abstract F16) | David Slater,<br>Rees Hill,<br>Ben Ale,<br>Erik Hollnagel |                |
|               | A guide to FRAM's method-sine-model approach, a tale with many shapes (Abstract F18)                          | Arie Adriaensen   |                |
|               | Lessons learned from Ithaca (extra presentation)  | Edwin Bailey  |                |
|               | Talking Heads Discussion  |   |                |

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| 14:30 – 15:00<br>Coffee |
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|---------------|--|---------------------|----------------|
| 15:00- 15:30  | <b><i>Reflections and where is FRAM Today</i></b>                  |                     | Anthony Smoker |
|               | Unveiling the culture behind decisions in daily work (Abstract F7) | Jeanette Hounsgaard |                |
| 15:30 - 16:00 | Concluding Discussion  |                     | David Slater   |

The background of the slide features a large, ornate fountain in the foreground on the left, with water spraying upwards. Behind the fountain is a grand, classical-style building with white columns and a pediment. Two Swedish flags are flying on tall poles in front of the building. The sky is clear and blue. The text is overlaid on a white rectangular box in the center-left of the image.

# Safety-II in practice Workshop, 2024

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6-7 June 2024

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LUND University, Sweden

Agenda

## Thursday 6th of June 2024

### Safety-II in practice 2024

Location: Gustafscenen, AF Borgen, Sandgatan 2, 223 50 Lund

| Time and location | Session & Presentation name     | Presenter | Session Chair(s) |
|-------------------|---------------------------------|-----------|------------------|
| 08:15 – 09:00     | Registration and Welcome Coffee |           |                  |
| 09:00 – 09:15     | Introduction<br>Anthony Smoker  |           |                  |
| 09:15 – 10:00     | Keynote speakers                |           | Anthony Smoker   |
|                   | Erik Hollnagel                  |           |                  |
|                   | Steven Shorrock                 |           |                  |

| 10:00 – 10:50 | <b>Safety II in the wild</b>   |  | Rogier Woltjer |
|---------------|--|--|----------------|
|               | How to put Safety-II principles into practice: challenges and strategies to develop a safety culture training in a railway company (Abstract S1) | Bracco, F., Ivaldi M., Reggiardo A.            |                |
|               | How workers' participation can support resilient and safe construction projects: a systematic review (Abstract S2)                               | Cambraia F., Saurin T., Bulhoes A., Formoso C. |                |
|               | Talking Heads discussion   |  |                |

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| 10:50 – 11:15<br>Coffee Break |
|-------------------------------|

| 11:15 – 12:30 | <b>Safety-II, RE and Resilient Performance</b>  |                                       | Arie Adriaensen |
|---------------|---|---------------------------------------|-----------------|
|               | Maritime pilots' quality assurance (Abstract S3)  | Di Lieto A.                           |                 |
|               | Dark Knights: Exploring resilience and hidden workarounds in commercial aviation through mixed methods (Abstract S11) | Steen R., Norman, J., Furdal Damm, G. |                 |
|               | 50 Years of the Health and Safety Act (Abstract S5)   | Slater D.                             |                 |

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| 12:30 – 13:30<br>Lunch |
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|---------------|--|--|----------------|
| 13:30 – 15:00 | <b>Safety-II workshop 1 –<br/>Safety II since 2013</b>   |  | Anthony Smoker |
|               | This, the first of two workshops, will explore and examine the path of safety-II since Dublin in 2013 and consider the contributions it may have made to the way that safety is conceived and enacted. |  |                |

15:00 – 15:30  
Coffee Break

|               |  |                                   |                    |
|---------------|--|-----------------------------------|--------------------|
| 15:30 – 17:00 | <b>Safety-II for emergency services and<br/>effective organizational learning</b>  |                                   | Riccardo Patriarca |
|               | Uncertainty management in a hostile environment: where the rules can't always apply and where organisational learning is limited (Abstract S8) | Lock G.                           |                    |
|               | A Safety-II perspective on emergency evacuation management (Abstract S10)  | Adriaensen A.,<br>Van de WAL C.N. |                    |
|               | Talking Heads Discussion   |                                   |                    |

17:15- 18:00  
**Visit to Skissernas Museum, at Finngatan 2**

18:15 – 22:00  
Safety-II Dinner 2024  
To be held at  
**Tegners Matsalar (at AF Borgen)**  
Sandgatan 2, Lund

**Friday 7th of June 2024**  
**Safety-II in practice 2024**  
**Gustafscenen, AF Borgen, Sandgatan 2, 223 50 Lund**

| Time and location             | Session & Presentation name  | Presenter   | Session Chair(s) |
|-------------------------------|--|---|------------------|
| 08:30 – 09:00                 | Pre-meeting coffee   |   |                  |
| 09:00 – 09:15                 | Introduction Day 2<br>Rogier Woltjer   |   |                  |
| 09:15 – 09:45                 | Keynote speaker  |   |                  |
|                               | Jean-Christophe Le Coze  |   |                  |
|                               |  |   |                  |
| 09:45 – 11:00                 | <b>Emerging Challenges in Complex Systems</b>  |   | Arie Adriaensen  |
|                               | Safety and resilience in the digital age: a bright future or a shadowed tomorrow (Abstract S4)   | Patriarca R.,<br>Saurin T.,<br>Hegde S.,<br>Rayo M. |                  |
|                               | ICAO system thinking (Abstract S6)   | De Wolfe S.   |                  |
|                               | Emergence and Complexity as the Friends of Safety (Abstract S7)  | Burnell J.,<br>Laursen T.,<br>Smoker A.             |                  |
|                               | Talking Heads Discussion   |   |                  |
| 11:00 – 11:20<br>Coffee Break |  |   |                  |
| 11:20 – 12:30                 | <b>Safety-II In practice: the view and a discussion with those implementing Safety-II today</b>  |   | Anthony Smoker   |
|                               | Cmdr Maria Martens, Royal Danish Navy<br>Captain James Burnell, Easyjet<br>Oéssur Hilduberg, Svitzer   |   |                  |
| 12:30 – 13:30<br>Lunch        |  |   |                  |
| 13:30 – 15:00                 | <b>Safety-II Workshop 2: Reflections and what do we do differently after Safety-II in Practice 2024?</b>   |   | Anthony Smoker   |
|                               | As the workshop draws to a close, it ends with a second workshop closing session where we can take a reflexive view of Safety-II in 2024 and consider what will be the discussions in 2034 if Safety-II has not been supplanted by another framework |   |                  |
|                               | Closing comments at the end of the workshop  |   |                  |