



SVENSKA  
SÄLLSKAPET  
FÖR  
AUTOMATISERAD  
BILDANALYS

SWEDISH  
SOCIETY  
FOR  
AUTOMATED  
IMAGE ANALYSIS

MEMBER OF THE INTERNATIONAL SOCIETY OF PATTERN RECOGNITION

# SSBAktuell

»»» nr 68 june 2023



[www.ssba.org.se](http://www.ssba.org.se)

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Title photo: Andrea Behanova

SSBAktuellt  
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June 2023

## Ordförandes Ord



Amanda Berg

Kära medlemmar,

SSBA-våren inleddes starkt med SSBA och SSDL symposium på Kolmårdens Vildmarkshotell strax utanför Norrköping. Det var inte bara det första symposiet som anordnats på plats sedan innan pandemin utan det var även ett jubileum, det 40e SSBA symposiet sedan starten 1976. Programmet innehöll som vanligt massor av intressanta bidrag och inbjudna talare. Men också en fantastisk symposiemiddag samt en tutorial i praktisk reinforcement learning av delfiner. Jag har egentligen ingen statistik men jag tror att vi slog något slags rekord med hela 170 individuella deltagare på de två symposierna och 55 registrerade deltagare på doktoranddagen.

Jag vill härmed skicka ett stort tack till arrangörerna för två mycket väl genomförda symposier! Turen att arrangera går nu vidare till Luleå och vi ser mycket fram emot SSBA/SSDL

2024 i Norrbotten.

Precis som jag sa under symposiemiddagen så är det ni medlemmar som är föreningen. Tveka inte att höra av er till oss om ni har några idéer eller tankar. Styrelsen nås på [ssba@ssba.org.se](mailto:ssba@ssba.org.se). Förutom en rapport från symposierna skriven av Hannah innehåller det här numret även rapporter från CVPR, SCIA och SCANDEM. Jag rekommenderar även att läsa intervjun med Elisabeth och Eduards rapport som innehåller erfarenheter från ett internship i Japan. Trevlig läsning!

Nu när semestern stundar runt hörnet vill jag passa på att önska er alla en riktigt fin sommar. Ta hand om er i värmen så hoppas jag att vi stöter på varandra vid något tillfälle under hösten!

June 2023, Sweden

## A Word from the Editors

# Call for SSBAktuellt Content

Dear SSBA Community,

We are approaching the end of another semester. Now, it is time for all of us to get some sun, relax, and enjoy the summer. We also wanted to take this opportunity to invite you all to contribute your ideas and engaging content, such as conference reports, internship experiences, and more, for inclusion in the upcoming issues of SSBAktuellt. Feel free to reach out to us at [redaktionen@ssba.org.se](mailto:redaktionen@ssba.org.se) with your suggestions.

Kind Regards,  
SSBAktuellt Redaktionen



Deniz

Andrea

Elisabeth

## A Word from the Editors

# Call for SSBAktuellt Cover Images

Do you have photos, images or graphics you would like to share with SSBA community that would fit the SSBA newsletter? Images connected to Sweden, your research, SSBA activities or graphics which relate to image analysis are all welcome! Please send your proposal to [redaktionen@ssba.org.se](mailto:redaktionen@ssba.org.se).





## Conference Report

# SSBA/SSDL 2023



Between March 13 and 15, the 6th annual Swedish Symposium on Image Analysis (SSBA) and 40th annual Swedish Symposium on Deep Learning (SSDL) were held in Kolmården (see title page). I had begun my PhD just a few months prior and had just as recently moved to Sweden. I had very little idea of what to expect and had little to offer in terms of contributions, but I had hoped to meet peers within Sweden and learn about what was happening within my field.

There was a very nice blend of experienced professors, fellow PhD students, and industry researchers who came from diverse backgrounds. Many of them gave informational and educational talks about what they had been researching, novel ideas which had had to be fully explored, and newfound challenges which needed to be tackled for the fields of Deep Learning and Image Analysis to progress. The contagiousness of the excitement exuded by these passionate researchers was a motivation like none other.

Much of the cutting-edge research in deep learning and image analysis seems to take place in medical image analysis. Though my knowledge about medical images and medicine is extremely limited, it is exciting to see how much deep learning can help diagnose diseases and find problematic tumors. I loved to see how focused the presenters were on ensuring detectors like these are not only accurate but can express how confident their

assessments are as well.

I was further impressed by talks given from several industries analyzing satellite images for different applications. This task feels insurmountable on first thought, but these skilled teams are mapping the planet in 3D, erasing clouds from images, and much more using data captured from space.

While I found all these talks very interesting, I most enjoyed getting to speak to fellow PhD students at the PhD student day, poster session, and at mealtimes. I got to hear many of them very passionately explain what it is they work on, pick their brains about what went right and what went wrong in their experiments, and give and receive feedback on next steps for their work and mine. Several of the posters I saw there have made me think about my own research in totally new ways, and many of the friends I made there are still some of my closest friends in Sweden.

Though unrelated to research, the dolphin show was also incredibly interesting, and having access to a pool and amazing hiking trails added a lot of value to the trip. All in all, I am very glad I went to this years SSDL and SSBA. I am sure I will return for many years to come, hopefully with contributions of my own next time around.

The Author

Hannah Helgesen  
PhD student  
CVL, Linköping

## Conference Report

# CVPR 2023

Mårten Wadenbäck reports on the Conference on Computer Vision and Pattern Recognition took place at Vancouver in June 2023.

Image: Mårten Wadenbäck



This year's CVPR was held at the Vancouver Convention Centre, right on the Downtown Vancouver Waterfront, and had over 8000 registered participants (including the virtual ones). Of the Swedish participants, I met people from industry, LiU, KTH, Lund and Chalmers. Notably, José Pedro Iglesias from Chalmers was spotted presenting his work "expOSE: Accurate Initialization-Free Projective Factorization using Exponential Regularization", which was awarded this year's SSBA Industry Prize back in March.

The technical programme consisted of keynotes, poster sessions, panel discussions and oral presentations from the award candidates. Personally, I liked the way this format allowed more time for interaction at the posters, but for next year I hope they consider replacing at least some of the panel sessions with additional keynotes instead. It was also a little odd that the award ceremony came before some of the award presentations. Among the keynotes, I particularly enjoyed "Modeling Atoms to Address Our Climate Crisis" by Larry Zitnick (Meta AI), which concerned making chemical catalyst screening

tractable by applying tools from computer vision and machine learning.

During the conference reception, we were treated to a live rendition of Daniel Wedge's "The Fundamental Matrix Song".

Outside of the conference, I took a walk in Stanley Park and got a good view of both the Kwakwaka'wakw Totem Poles and the famous North Vancouver Sulphur Pile across the bay. Some of us from LiU went with the Skyride to the top of Grouse Mountain, which offered spectacular views of Vancouver and the bay. Before setting out on the 15 hour journey home, we had some additional views of Downtown from the Vancouver Lookout.

The Author

Mårten Wadenbäck  
Assistant Professor  
Linköping University



## Conference Report

# SCIA 2023

Ewert Bengtsson reports on the 22nd Scandinavian Conference on Image Analysis took place at the ski resort Levi in northern Finland in April 2023.



Image: Ewert Bengtsson

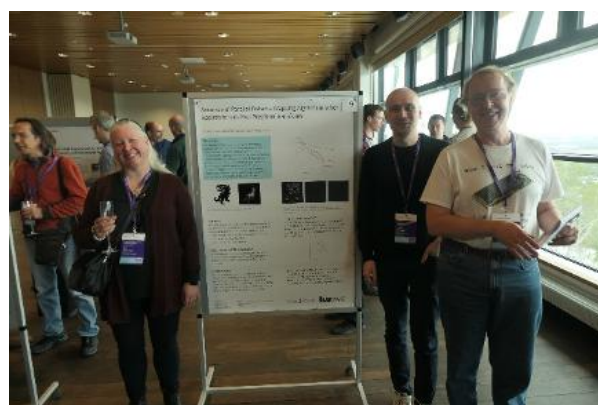


The 22nd Scandinavian Conference on Image Analysis, SCIA, took place at the ski resort Levi in northern Finland, far north of the Arctic Circle, at the end of the ski season, April 18-21. Adhering to my ambition of attending all SCIA conferences (so far successful with all 22 of them) without flying (some exceptions such as the 11th SCIA in Kangerlussuaq, Greenland) the trip to the conference involved bus-train-bus-walk-bus-bus-taxi starting late April 16 and arriving in the afternoon of April 18. When arriving in Levi we looked for the conference hotel and the bus driver pointed at the top of the ski slope, thus the last leg of the trip with taxi around and up the mountain. When arriving there we found out that the cabin ski lift ran continuously all day and the cost was included in the hotel price.

The venue was excellent with everything included and very close together. The sessions were held in the afternoons so you could go skiing or pursue other activities in the mornings such as hiking up and down the edges of some ski slopes which I and my wife Brita did. There was a single track held in a huge movie theatre reserved for us during the

whole week. The size of the theatre made it feel almost empty even when most of the around 80 participants were present. I was the only CBA physical attendant, a record low for all 22 SCIA conferences, but there were a couple of remote CBA papers presented on the huge screen. And other Scandinavian groups were better represented.

The dominant theme was modern AI methods for generation of images and natural language processing which fitted well with NVIDIA and HUAWEI which were the dominant sponsors.





But there were also classical image analysis contributions. One interesting poster was by Ingemar Ragnemalm from Linköping who revisited the theme of his PhD thesis from the nineties on the Euclidean distance transform with some new improvements. The poster sessions were held in a room where a fantastic view of the landscape competed with the posters for your attention.

The conference dinner was held in Saamen Kammi, i.e. Sami Cave. There was a very nice dinner with local traditional dishes and the entertainment was by a genuine noid singing, telling about Sami traditions and playing the Sami magic drum. There were also the traditional best paper awards, but no best Scandinavian PhD thesis award this year.



The travel back home completed the loop around the bothnian Sea travelling by cabin car, bus, train, boat, bus, train and bus. Arriving back home at noon on Sunday April 23, satisfied after another interesting SCIA experience and looking forward to the 23rd.





## Conference Report

# SCANDEM 2023



Sweden and Uppsala put up its very best face when welcoming the participants to the 73rd annual meeting of the Nordic Microscopy Society, June 12-15. The first 3 days contained scientific talks, posters and a busy industry exhibition, and the final day offered 4 sessions of parallel workshops. I gave a workshop on Basic image processing which was very well attended and appreciated. The conference was held at the new Ångström in Uppsala and gathered just below 300 participants and 23 exhibitors showcasing instruments, equipment and services (whereof one was an image analysis service company – SciSpot (new to me)).

The conference covered both material science and life science but in all honesty there was very little overlap between the two areas. In life science, applications using various light and electron microscopy techniques were covered whereas in material science the focus was entirely on different electron microscopy techniques. The conference had 6 invited plenary speakers, where at least the life science ones were impressive profiles that gave very interesting backward- and forward-looking talks of the development and current focus of their respective fields. Wolfgang Baumeister from the Max Planck Institute and

a guru within structural biology talked about “Cryo-Electron Tomography or the Power of Seeing the Whole Picture”. I.e., looking at protein structure “in situ” in order to understand their functionality. Xiaowei Zhuang, from Harvard Medical School, inventor of several key techniques for high resolution imaging of genes (STORM and MERFISH), talked about spatial mapping and functional annotation of cell types in the brain. Michael Laue, from the Robert Koch Institute talked about the role of electron microscopy in infectious disease outbreaks and the interplay of pathogens with several systems in the human body with experiences from the covid19 disease and recent outbreak of mpox. The three material science plenary speakers were probably also good and interesting but I can’t really say, since I seem know very little of that field.

All in all, it seemed as if the SCANDEM community enjoyed the conference and were happy to meet again IRL.

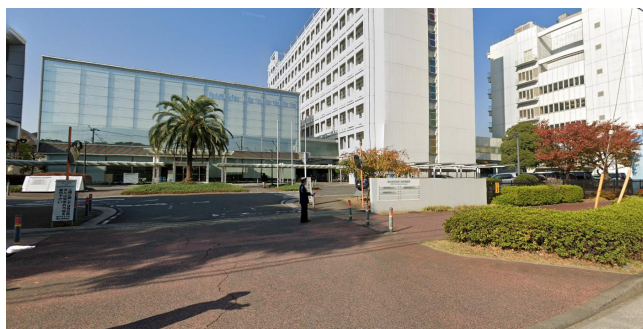
The Author

Ida-Maria Sintorn  
part of the SCANDEM2023 organizing  
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## Internship report

# Land of the rising sun

Eduard Chelebian Kocharyan did an internship in the country of the rising sun, Japan and he would like to share his experience with us.



The internship took place in Laboratory for Genome Information Analysis, Integrative Medical Sciences, RIKEN, Yokohama. The group is led by Chung Chau Hon. I had always wanted to go to Japan since the early stages of my career. The opportunity to live and work there became even more appealing when I discovered the collaboration between SciLifeLab and RIKEN. It seemed like a great fit for me, so I decided to apply. In this particular research group, the team consisted mostly of international members. Although I didn't fully experience the broader Japanese working culture, I could see that the group was influenced by it. The environment was formal, with long working hours, and the projects were often ambitious in nature.

Language proved to be an important barrier, as it was necessary to learn some Japanese before arriving. However, within the research environment, Japanese proficiency wasn't mandatory, but it certainly helped enhance the overall experience. Additionally, the time constraint of a three-month internship sometimes made it challenging to complete all the desired tasks, such as data collection, processing, etc.

During the internship, I acquired several scientific skills in the field of genomics. The research group focused on single-cell

sequencing and spatial transcriptomics, with no imaging at all. I learned various genomic techniques for single-cell analysis, including single-cell deconvolution and batch normalization. These skills are also applicable to spatial transcriptomics. Moreover, I had the opportunity to develop my networking abilities and work in an interdisciplinary research environment with people engaged in different areas of expertise.

Overall, I had a fantastic experience, and there isn't much I would change. Perhaps one improvement would be to have certain preparations made in advance, allowing for a more streamlined research output. This way, I could have maximized my time in Japan without needing to dedicate additional work upon returning. I would rate this internship a perfect 10 out of 10 in terms of meeting my expectations. Both the research group and the country exceeded my expectations. Although it would have been great to achieve better scientific output, the overall experience of being in Japan compensated greatly for it.

### The Author

Eduard Chelebian Kocharyan  
PhD student  
Uppsala University



## Interview

# Interview with Elisabeth Wetzer

Elisabeth Wetzer defended her PhD thesis 'Representation Learning and Information Fusion' on June 12. Can Deniz Bezek conducted an interview with her about the doctoral experiences.



Image: Can Deniz Bezek

**Q:** Congratulations on your PhD defense! How would you describe the experience of defending your thesis?

**A:** I was of course a bit nervous beforehand, but it turned out a lot more fun than I had imagined it. It's always hard to know what to expect beforehand because every opponent will have a different approach and background, also coming from different countries and universities with different Ph.D. defense customs, so the Ph.D. defenses I have attended from other colleagues have been quite diverse. In the end, I have enjoyed my own defense a lot - once I realized it was going well!

**Q:** What was your personal experience like when managing the demands of thesis writing, presentation, and job searching as you approached the culmination of your PhD?

**A:** The last half a year before the defense were intense. Like many other Ph.D. students in this phase, I was still working on ongoing research projects which I wanted to include in my thesis, while trying to formulate how my individual research papers related to each other in a bigger picture for the thesis. Writing

a thesis differs from writing a research paper in many ways, and I found that it took a while to make good structure and deciding what I'd like to put in before actually getting going with the writing itself. Having an ultimate deadline for printing which cannot be postponed adds a lot of pressure to the process, especially as there will always be unknown distractions which you need to accommodate - like becoming sick, revisions of papers under review, or job openings that you really want to apply to or other opportunities that you don't want to miss out on. So I can only recommend to start at least thinking about how you want to structure your thesis really early on, long before you actually reach the time of the writing process!

**Q:** Can you elaborate on the key challenges you encountered throughout your PhD journey?

**A:** For me personally, the first few years of the Ph.D. were the most stressful and full of self-doubt. I found it overwhelming to get an overview of the research which had been already done and to formulate interesting research questions myself, especially

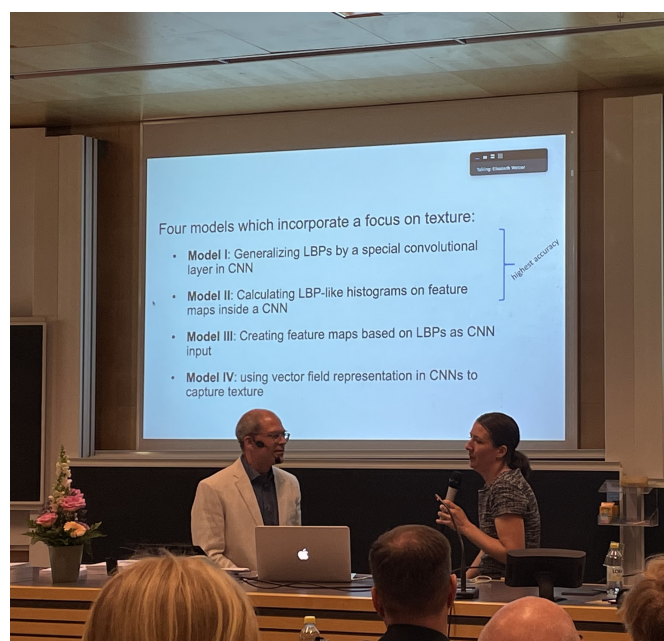
because the field of deep learning is so incredibly quickly evolving. In the beginning it felt hopeless to catch up with the state of the art as I originally had no background in this field when I started my Ph.D., but it became an integral part of my work. I was very lucky to have had very supporting supervisors who made sure to formulate research projects with me and make precise plans of which ideas we wanted to explore and what was needed to evaluate them to draw conclusions from our experiments. As I progressed in my Ph.D., I became more and more passionate about certain aspects of the field and could explore my own paths more and more independently, which I really enjoyed.

**Q:** Can you discuss any significant findings or outcomes from your research that you are particularly proud of?

**A:** I think the overall conclusions I draw from the different studies I have conducted during the Ph.D. is that we can really boost the performance of machine learning methods by exploiting some information and structures that are intrinsic to the data itself, without limiting the methods to a particular task or kind of data. Either using geometric priors, or the extensive knowledge we have from forming handcrafted features in classic image processing for certain tasks that were robust and successful long before the deep learning era. My Ph.D. was in a interdisciplinary field and I'm happy to have had the possibility to peak into different applications and learn a lot about the existing problems in clinical applications. For example, I have worked with classification of cells from the oral cavity to study if we could identify patients at risk for oral cancer early on using a non-invasive screening program relying on automatic sample analysis using AI. My study only addresses a small part of this project, but if we in the end can roll out a screening program for early oral cancer detection and save lives this way, I would be extremely happy to have contributed to this!

**Q:** Can you describe a particularly memorable moment or breakthrough during your PhD?

**A:** About halfway through my Ph.D., an idea that some of my fellow Ph.D. students and I had in one of the many times we'd discuss and brainstorm ideas at the whiteboard, showed very promising results and in the end became a paper we successfully submitted to NeurIPS. I'm very proud of that, as it is a very competitive conference, and we worked quite independently on this method as Ph.D. students. It's been an extremely rewarding experience to work on this collaboration, and I'm very excited to explore many more aspect of our method which can learn common representations for multimodal images and provides an alternative to other generative methods used for image-to-image translation that unlike our method generally rely on large amount of training data, that often isn't available in biomedical applications.





**Q:** How did you balance your academic commitments with other aspects of your life during your PhD?

**A:** Frankly, I am not sure if I'm actually doing a good job finding a good balance. My husband is in academia himself, so research is just an integral part of both of our lives and very often we find ourselves spending our evening on something related to work. It's also fun, because we understand what the other person is working on and we can discuss ideas and problems together. We have a small daughter and she of course doesn't care about our work, so she makes sure that we get a break from work in the afternoons and weekends and focus on our time as a family - I'm very thankful for that!

**Q:** Could you share your long-term goals for the future?

**A:** I definitely hope to stay in academia, and want to continue my work in method development in machine learning with a focus on interdisciplinary problems coming from biomedical, health or environmental applications.

**Q:** What would you recommend to other PhD students?

**A:** I think it is most important that you find aspects of your research project that you are really passionate about, and if you are unhappy with how your Ph.D. is progressing to explore ways how you can improve that situation and try to communicate those needs early on. Mental health is such a big issue among Ph.D. students internationally, but there are some possibilities to steer the direction of your Ph.D. also, e.g. scholarships and programs to go abroad to a different institution for a research internship, which may give you a new perspective of your own research or what you need from your supervision. Mentoring programs can be a great source and opportunity to create a network, and to get advice from experienced researchers independent to your own group. When it comes to thesis writing, I can of

course advise to start as early as possible, but also to team up with other Ph.D. students if possible, who are in a similar state and meet regularly to write together - it is fun and stimulating, but also such a good resource to keep on top of other logistic requirements you need to do before submitting your thesis!



The Author

Can Deniz Bezek  
PhD student  
Uppsala University

Outlook 2023

## Upcoming Conferences



### JULY

Intl. Conference on Pattern Recognition Systems (ICPRS)

<http://www.icprs.org>

July 04-07, 2023 - Guayaquil, Ecuador

Medical Imaging with Deep Learning (MIDL)

<https://2023.midl.io/call-for-papers.html>

July 10-12, 2023 - Nashville, US

DeLTA 2023: 4th International Conference on Deep Learning Theory and Applications

<https://delta.scitevents.org/>

July, 13-14, 2023 - Rome, Italy

International Conference on Machine Learning (ICML)

<https://icml.cc/>

July 23-29, 2023 - Honolulu, Hawaii

MVA 2023: 18th International Conference on Machine Vision Applications

[www.mva-org.jp/mva2023/](http://www.mva-org.jp/mva2023/)

July 23-25, 2023 - Shizuoka, Japan

8th International Conference on Image, Vision and Computing (ICIVC)

<http://www.icivc.org>

July 27-29, 2023 - Dalian, China

### AUGUST

International Conference on Document Analysis and Recognition (ICDAR)

<https://icdar2023.org>

August 21-26, 2023 - San José, California, USA

### SEPTEMBER

International Ultrasonic Symposium (IUS) 2023

<https://2023.ieee-ius.org>

September 3-8, 2023 - Montreal, Canada

13th IAPR-TC15 International Workshop on Graph-Based Representations in Pattern Recognition

<https://gbr2023.unisa.it>

September 6-8, 2023 - Salerno, Italy

International symposium on image and signal processing (ISPA)

<https://www.isispa.org>

September 18-20, 2023 - Rome, Italy

DAGM German Conference on Pattern Recognition (GCPR)

<https://www.dagm-gcpr.de/year/2023>

September 19-22, 2023 - Heidelberg, Germany



## OCTOBER

International conference on computer vision (ICCV) 2023

<https://iccv2023.thecvf.com>

Oct 2-6, 2023 - Paris, France

26th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI) 2023

<http://www.miccai.org/events/upcoming-conferences/>

Oct 8-12, 2023 - Vancouver, Canada

IEEE international conference on image processing

<http://2023.ieeeicip.org>

9-12 October 2023 - Kuala Lumpur, Malaysia

12th International Conference on Computing and Pattern Recognition (ICCPR 2023)

<http://www.iccpr.org/>

27-29 October, 2023 - Quigdao, China

## NOVEMBER

7th Asian Conference on Pattern Recognition (ACPR 2023)

<https://ericlab.org/acpr2023/>

5-8 November 2023 - Kitakyushu, Japan

26th Iberoamerican Congress on Pattern Recognition (CIARP)

<https://ciarp2023.isec.pt/>

27-30 November, 2023 - Coimbra, Portugal

## DECEMBER

Neural Information Processing Systems (NeurIPS) 2023

<https://neurips.cc/Conferences/2023>

Dec 10-16, 2023 - New Orleans, USA



## Conference Announcement

# ICPR 2024



**27TH International Conference on Pattern Recognition**  
December 01-05, 2024, Kolkata, India

### PRELIMINARY CALL FOR PAPERS

(Information tentatively listed and subject to final approval by IAPR. More will be added soon)

**General Chairs**  
Umapada Pal, India  
Josep Kittler, UK  
Anil Jain, USA

**Program Chairs**  
Rama Chellappa, USA  
Apostolos Antonacopoulos, UK  
Cheng-Lin Liu, China  
Subhasis Chaudhuri, India

**Workshop Chairs**  
Edwin Hancock, UK  
P. Shivakumara, Malaysia  
Stephanie Schuckers, USA  
Jean-Marc Ogier, France

**Tutorial Chairs**  
B. B. Chaudhuri, India  
Guoying Zhao, Finland  
Michael R. Jenkin, Canada

**Competition Chairs**  
Richard Zanibbi, USA  
Lianwen Jin, China  
Laurence Likforman, France

**Doctoral Consortium Chairs**  
Daniel Lopresti, USA  
Véronique Eglin, France  
Mayank Vatsa, India

**Publicity Chairs**  
Dipti Prasad Mukherjee, India  
Bob Fisher, UK  
Xiaojun Wu, China

**Publications Chairs**  
Wataru Ohyama, Japan  
Ananda S. Chaudhury, India

**Awards Committee Chair**  
Arpan Pal, India

**International Liaison / Visa Chairs**  
Palash Ghosal, India  
Yue Lu, China, China

**Finance Chairs**  
Kaushik Roy, India  
Michael Blumenstein, Australia

**Organizing Chairs**  
Saumik Bhattacharya, India  
Sk Md Obaidullah, India  
Swagatam Das, India

The International Conference on Pattern Recognition (ICPR) is the flagship conference of the International Association of Pattern Recognition (IAPR) and the premier conference in pattern recognition, covering computer vision, image, speech and video processing, machine intelligence, and other related areas. It is a 5-day event that comprises the main conference, Workshops, Tutorials, different Competitions, Doctoral Consortium etc. ICPR-2024 is the 27th event of the series and it provides a great opportunity to nurture new ideas and collaborations for students, academics and industry researchers.

### MAIN TOPICS OF INTEREST

ICPR-2024 has 6 tracks as follows:

- ▶ Artificial Intelligence, Machine Learning for Pattern Analysis
- ▶ Computer and Robot Vision
- ▶ Image, Speech, Signal and Video Processing
- ▶ Biometrics and Human Computer Interaction
- ▶ Document Analysis and Recognition
- ▶ Biomedical Imaging and Bioinformatics

### IMPORTANT DATES

- ▶ First Call for Papers: August 2022
- ▶ Second Call for Papers: August 2023
- ▶ Paper submission open: March 1, 2024
- ▶ Paper submission deadline: May 1, 2024
- ▶ Reviews sent to authors: July 25, 2024
- ▶ Author rebuttal: August 5, 2024
- ▶ Acceptance notification: August 15, 2024
- ▶ Camera-ready submission: September 15, 2024
- ▶ Conference: December 1-5, 2024

### SUBMISSION AND REVIEW

ICPR-2024 will follow a single-blind review process. Authors can include their names and affiliations in the manuscript.

### PAPER FORMAT AND LENGTH

IEEE Conference Proceedings format with maximum 6 pages (without bibliography) during paper submission. The authors will have an option of purchasing up to 1 extra page to take care of the reviewers' comments, if necessary. This will have to be paid after paper acceptance and at the time of registration.

Contact: For any enquiry please contact the ICPR-2024 Secretariat via email at [icpr2024@gmail.com](mailto:icpr2024@gmail.com) and [icpr2024@isical.ac.in](mailto:icpr2024@isical.ac.in)

### Track Chairs

**Track 1: Artificial Intelligence, Machine Learning for Pattern Analysis**  
Larry O'Gorman, USA  
Petia Radeva, Spain  
Sushmita Mitra, India  
Dacheng Tao, Australia

**Track 2: Computer and Robot Vision**  
Maja Pantic, UK  
C. V. Jawahar, India  
João Paulo Papa, Brazil

**Track 3: Image, Speech, Signal and Video processing**  
P. K. Biswas, India  
Shang-Hong Lai, Taiwan

**Track 4: Biometrics and Human Computer Interaction**  
Massimo Tistarelli, Italy  
Wei-Shi Zheng, China  
Richa Singh, India  
Vishal Patel, USA

**Track 5: Document Analysis and Recognition**  
Xiang Bai, China  
Josep Lladós, Spain  
Mita Nasipuri, India  
David Doermann, USA

**Track 6: Biomedical Imaging and Bioinformatics**  
Xiaoyi Jiang, Germany  
Seong-Whan Lee, Korea  
J. Mukhopadhyaya, India

### Women in ICPR Chairs

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ICPR 2024 is the flagship conference of IAPR, the International Association of Pattern Recognition. Professionals working in computer vision, image, sound, speech, pattern recognition, and machine intelligence can update their knowledge and sharpen their skills in all subspecialties of pattern recognition.

ICPR 2024 will be held Kolkata, India.

For more information, please visit:

<https://icpr2024.org/>

General topics of interest:

- Artificial intelligence, Machine Learning for Pattern Analysis
- Computer Vision, Robotics and intelligent Systems
- Image, Speech, and Signal Analysis
- Biometrics, Human Analysis and Behavior Understanding
- Document and Media Analysis
- Biomedical Image Analysis and Informatics

## Event Announcement

# Soapbox Science 2023



Soapbox science event 2023 will take place in Stockholm, Sweden. Built on 14 islands around one of Europe's largest and best-preserved mediaeval city centres, the city is stunningly located by the Baltic Sea. It has about 1 mill inhabitants and it provides a large variety of cultural and out-door activities. Stockholm was the first city to receive the award European Green Capital by the EU Commission in 2010. Stockholm is an academic hub for Sweden with 18 universities and higher education institutions spanning a wide range of cultural, technological, scientific, medical, economic and sustainability disciplines.

Soapbox science event in Stockholm in 2023 is organized by five female scientists that do research at the Department of Physical Geography, Stockholm University. They are an engaged group of scientists that enjoys our research activities and we want to tell the public more about our findings.

- Ronja Kraus, PhD student, Dept of Physical Geography, Stockholm University
- Anna Scaini, Researcher at Dept of Physical Geography, Stockholm University
- Heather Wood, PhD student, Landscape Environment and Geomatics, Dept of Physical Geography, Stockholm University
- Marianne Stoessel, PhD student, Landscape Environment and Geomatics, Dept of Physical Geography, Stockholm University
- Felicity Pike, PhD student, Dept of Physical Geography, Stockholm University
- Anna Treydte, Assoc Prof in Nature and Environmental Management, Dept of Physical Geography, Stockholm University.

For more information on visit:

<http://soapboxscience.org/>

## Outlook 2023

# Summer/Winter Schools 2023

31st Summer School on Image Processing (SSIP)

<http://imft.ftn.uns.ac.rs/ssip2023/>

July, 10-16t, 2023, in Novi Sad, Serbia

1st European Summer School on Artificial Intelligence - ESSAI 2023

<https://essai.si/>

July, 24-28, 2023, in Ljubljana, Slovenia

CVML Short course on Deep Learning and Computer Vision

<https://icarus.csd.auth.gr/cvml-short-course-deep-learning-and-computer-vision-2023>

August, 28-29, 2023, in Thessaloniki, Greece

CVML Programming Short Course and Workshop on Deep Learning and Computer Vision 2023

<https://icarus.csd.auth.gr/cvml-programming-short-course-and-workshop-on-deep-learning-and-computer-vision-2023/>

August 30 - September 1, 2023, in Thessaloniki, Greece

Mini-Workshop: Interpolation and Over-parameterization in Statistics and Machine Learning

[https://www.mfo.de/occasion/2338b/www\\_view](https://www.mfo.de/occasion/2338b/www_view)

September, 17-22, 2023, in Oberwolfach, Germany

Northern Lights Deep Learning (NLDL) 2024 Ph.D. Winter School

<https://www.nldl.org/winter-school>

January, 8-12, 2024, in Tromsø, Norway



## Announcement

# Aktuella Avhandlingar

Här presenteras de avhandlingar som publicerats sedan senaste numret av SSBAktuellt och kommit redaktionen till känna. Meddela redaktionen om aktuella avhandlingar



Erik Gärtner  
Lund Universitet  
[Active and Physics-Based Human Pose Reconstruction](#)

Martin Trimmel  
Lund Universitet  
[Network Parametrisation and Activation Functions in Deep Learning](#)

David Gillsjö  
Lund Universitet  
[Applications in Monocular Computer Vision using Geometry and Learning](#)

## Doktorsavhandlingar

Nicolas Pielawski  
Uppsala Universitet  
[Learning-based prediction, representation, and multimodal registration for bioimage processing](#)

Eva Breznik  
Uppsala Universitet  
[Image Processing and Analysis Methods for Biomedical Applications](#)

Elisabeth Wetzer  
Uppsala Universitet  
[Representation Learning and Information Fusion: Applications in Biomedical Image Processing](#)

David Abramian  
Linköping Universitet  
[Modern multimodal methods in brain MRI](#)

Emil Brissman  
Linköping Universitet  
[Learning to Analyze Visual Data Streams for Environment Perception](#)

Karl Holmquist  
Linköping Universitet  
[Data-Driven Robot Perception in the Wild](#)

Tanaboon Tongbuasirilai  
Linköping Universitet  
[Data-Driven Approaches for Sparse Reflectance Modeling and Acquisition](#)