Welcome to ICCV 2023
Finance chairs

- Gérard Medioni
  Amazon & USC
- Ramin Zabih
  Cornell Tech & Google

Diversity chairs

- Angjoo Kanazawa
  University of California
- Gül Varol
  Ecole des Ponts
- Michael Black
  Max Planck Institute

Publications

- Gaurav Sharma
  TensorTour and IIT Kanpur
- Frederic Jurie
  ENSICAEN

Industrial Relations

- Patrick Perez
  Valeo
- Rahul Sukthankar
  Google

Organization Chairs

- Laurent Najman
  Université Gustave Eiffel
- Hugues Talbot
  Université Paris-Saclay
Workshop and Tutorial chairs

- 56 workshops  (34 half day, 22 full day)
- 10 tutorials       (1 full day 9 half day)

Demo chairs

- Total 34 applications were received, 27 accepted
- Demos each day of the main conference (10:30am – 4pm).
- “Best Demo Award” (100 Euro award)
Doctoral Consortium chairs

Opportunity for recent grads/close-to-complete PhD Students to interact with experienced researchers

➢ One-to-one matching of students to mentors
➢ Round-table discussions
➢ Discuss career plans and research
➢ 38 students

Social Media chairs

Contribute with posts, tweets, likes

twitter.com  weibo.com

#ICCV2023 @ICCVConference
Thanks to all of our chairs for an amazing amount of hard work!!

And now a very special thank you to three groups of people
Local Organization

PCO: Dakini
Local site: VIParis

Logistics Chairs

François Tapissier
Dakini-PCO

Ludivine Fluneau
Dakini-PCO

Laurent Najman
Université Gustave Eiffel

Oriane Siméoni, Valeo

Renaud Marlet
Ecole des Ponts ParisTech / Valeo

And Chrystel Orsini, Laura Reeve, Véronique Parasote, Athanaël Guitard, Guillaume Daynes, and Manon Baby

Plus 160 student volunteers!!

Thank you !!!
Diversity chairs

- Travel support for attendees
  - 551 applications
  - 164 registration waivers
  - 128 travel grants

- High school outreach event
  - 40 high school students
  - Co-organized with “Filles, Maths, Informatique” (Women, Maths, CS)
  - Introduction to computer vision talk, tours of demos, posters, expo, orals
    - Big thanks to all volunteers and mentors!

- Onsite childcare services
- Supported by a 25k donation from DeepMind, and 200k donation from CVF and IEEE-CS

Thank you !!!

https://sites.google.com/view/iccv-2023-outreach-event/
Publication chairs

Gaurav Sharma
TensorTour and IIT Kanpur

Frederic Jurie
ENSICAEN

Thank you !!!
Honorary Chair: Olivier Faugeras

Pioneering work on
- 2D and 3D object recognition under geometric constraints
- Structure from motion (wrote the book at the time)
- Multi-view geometry (introduced and named the fundamental matrix)
- Level sets for surface reconstruction from multiple views
- Started ECCV. Ran IJCV for many years

Switched to neuroscience at the peak of computer vision career!
Honorary Chair: Katsushi Ikeuchi

Responsible for early work in the field on:

- Shape representation from extended Gaussian images to deformable surfaces
- Shape from shading and physics-based vision
- Learning from demonstrations
- Applications of vision and robotics to cultural heritage preservation
Honorary Chair: Joe Mundy

Responsible for early work in the field on:

- Recognizing 3D objects in an image
- The importance and use of geometry in shape representation and matching
- The importance of projective geometry and invariance
- Industrial applications of computer vision

Joe is attending ICCV, so you can meet with him
Attendance

Attendees from 84 countries/regions

<table>
<thead>
<tr>
<th>Country</th>
<th>Attendees</th>
</tr>
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<tbody>
<tr>
<td>China</td>
<td>1233</td>
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<tr>
<td>United States</td>
<td>1034</td>
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<tr>
<td>France</td>
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<tr>
<td>Korea</td>
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<td>Germany</td>
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<td>UK</td>
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<td>Switzerland</td>
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<td>Japan</td>
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<td>Netherlands</td>
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<td>Italy</td>
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<td>Canada</td>
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<td>Singapore</td>
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<td>Israel</td>
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<td>Hong Kong</td>
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<td>Australia</td>
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<td>India</td>
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<td>Spain</td>
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<td>Belgium</td>
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<td>Sweden</td>
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<td>Taiwan</td>
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<td>Austria</td>
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<td>Saudi Arabia</td>
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<td>United Arab Emirates</td>
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<td>Denmark</td>
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<td>Colombia</td>
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<td>Czech Republic</td>
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<td>Finland</td>
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<td>Romania</td>
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<td>Croatia</td>
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<td>Armenia</td>
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<td>Slovenia</td>
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<td>Ethiopia</td>
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<td>Luxembourg</td>
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<td>Vietnam</td>
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<td>Norway</td>
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<td>Brazil</td>
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<td>Hungary</td>
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<td>Cyprus</td>
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<td>Korea Dem</td>
<td>10</td>
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<tr>
<td>Other 37 countries</td>
<td>&lt; 10</td>
</tr>
</tbody>
</table>
Attendance in numbers

As of yesterday: 7335 registrations incl. 6761 in-person
COVID

- Please be careful
- We have 12,000 masks at registration desk
- We have 500 rapid tests if you feel like you may have symptoms. Ask registration desk
Sponsors & Exhibit

- 47 exhibitor booths
- co-organized with HEI

Ultimate

Google DeepMind

Platinum

Amazon | science | ANT Research | Google Research | Meta AI

Gold

Adobe | Valeo | Qualcomm | Wayve | Baidu | Voxel51
Acceptance rate:

- 29%
- 25%
- 26%
- 26%
311 ACs

6 990 Reviewers

25 221+ Authors

25 558 reviews received $\rightarrow$ 3.16 reviews per paper
  - 1 320+ emergency reviews
  - 175 paper with 5 reviews $\ldots$ 1 paper with 10 reviews

3+ reviews for each paper released on time before rebuttal

Accept/Reject decisions
  - Taken by AC triplets at virtual AC meetings
  - Based on paper merits, i.e. no acceptance rate was imposed a-priori.

152 papers selected for oral presentations $\rightarrow$ 1.8% oral acceptance rate
Primary subject area

# of papers

Acceptance rate

Submitted

Accepted
Why having talks?

- Efficient way to propagate information
  - Gives a glimpse of key new ideas and results in your area
  - Gives you exposure to ideas and results in other areas
- Visibility for the authors
- Posters can be easily overcrowded
Program at a glance

- 2 Parallel tracks
- 14 Oral sessions
- 5-minute talks
- 30-minute blocks of 4 papers
- 10-minute Q&A at the end of each block
- 6 poster sessions
- Each oral is also a poster on the same day
Keynote speakers

Dorsa Sadigh  
Stanford  
*Interactive Learning in the Era of Large Models*  
Thursday 13:30-14:30 (Paris Nord)

Pushmeet Kohli  
Google DeepMind  
*The potential of AI in advancing science and the importance of ensuring AI's responsible use*  
Friday 13:30-14:30 (Paris Nord)
Floor plan

- Overflow rooms
- Posters Foyer Sud
- Overflow rooms
- Coffee
- Foyer Sud
- Plenary Paris Sud (A)
- Expo
- Plenary Paris Nord (B)
- Expo
- Coffee
- Posters Nord
- Registration
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Paper ID</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday 4th</td>
<td>09:30 AM-10:30 AM</td>
<td>3D from multi-view and sensors</td>
<td>1</td>
<td>ClothPose: A Real-world Benchmark for Visual Analysis of Garment Pose via An Indirect Recording Solution</td>
<td>Wenhua Xu, Wenxin Guan, Yan Xue, Xun Li, Yun Wu, Yan Liang, Yuan Cheng, Tian Yang</td>
</tr>
<tr>
<td>Wednesday 4th</td>
<td>09:30 AM-10:30 AM</td>
<td>3D from multi-view and sensors</td>
<td>1</td>
<td>EMR-MSF: Self-Supervised Recurrent Monocular Scene Flow Exploiting Ego-Motion Rigidity</td>
<td>Ziyi Jiang, Masatoshi Okutomi</td>
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<td>3D from multi-view and sensors</td>
<td>1</td>
<td>ENVIDR: Implicit Differentiable Renderer with Neural Environment Lighting</td>
<td>Ruofan Liang, Huiting Chen, Chunlin Li, Fan Chen, Devakumar Pannker, Nandita Vijaykrishnan</td>
</tr>
<tr>
<td>Wednesday 4th</td>
<td>09:30 AM-10:30 AM</td>
<td>Adversarial attack and defense</td>
<td></td>
<td>CGBA: Curvature-aware Geometric Black-box Attack</td>
<td>Md Farhanur Reza, Ali Rahmati, Tang Wu, Huayi Dai</td>
</tr>
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<td>09:30 AM-10:30 AM</td>
<td>Adversarial attack and defense</td>
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<td>Robust Evaluation of Diffusion-Based Adversarial Purification</td>
<td>Minjong Lee, Dongwoo Kim</td>
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<td>Adversarial attack and defense</td>
<td></td>
<td>Advancing Example Exploitation Can Alleviate Critical Challenges in Adversarial Training</td>
<td>Yao Ge, Yun Li, Keji Han, Junyi Zhu, Xianzhong Long</td>
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<td>Adversarial attack and defense</td>
<td></td>
<td>The Victim and The Beneficiary: Exploiting a Poisoned Model to Train a Clean Model on Poisoned Data</td>
<td>Zixuan Zhu, Rui Wang, Zong Yang, Lihua Jiang</td>
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</table>
Orals

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<td>3D from multi-view and sensors 1</td>
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<td>Wednesday 4th 9:30 AM-10:30 AM</td>
<td>ClothPose: A Real-world Benchmark for Visual Analysis of Garment Pose via An Indirect Recording Solution Wenhong Xu, Wenxin Du, Han Yue, Yutong Li, Ruolin Ye, Yan-Feng Wang, Cewu Lu</td>
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<td>Wednesday 4th 9:30 AM-10:30 AM</td>
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<td>CGBA: Curvature-aware Geometric Black-box Attack Mad Ismaeel Raza, Ali Rahmati, Tingyu Wu, Huayu Dai</td>
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<td>The Victim and The Beneficiary: Exploiting a Poisoned Model to Train a Clean Model on Poisoned Data Zixuan Zhu, Rui Wang, Cong Zhu, Lihe Jia</td>
</tr>
</tbody>
</table>

(*) Some talks might be missing due to travel issues
(**) The order of Orals is correct on the online program and NOT on the printed version
Oral sessions overflow rooms

● Don’t sit on the floor or block exits

● The opening session (and keynotes) will in Paris North, and streamed in Paris South + all south rooms

● For the rest of the sessions:
  ○ All the sessions in Paris North will be streamed in rooms South 1-2-3
  ○ All the sessions in Paris South will be streamed in rooms South 4-5-6
<table>
<thead>
<tr>
<th>Time</th>
<th>Event Type</th>
<th>Title</th>
<th>Authors</th>
<th>Location</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday 4th</td>
<td>Posters</td>
<td>Neural generative models</td>
<td>Liang Xu, Ziyang Song, Dongfang Wang, Jing Su, Zhicheng Yang, Chenjing Ding, Weihao Gan, Yichao Yan, Xin Jin, Xiaokang Yang, Wenlin Zeng, Wei Wu</td>
<td>Room “Foyer Sud”</td>
<td>014</td>
</tr>
<tr>
<td>10:30 AM - 12:30 PM</td>
<td>Generative models</td>
<td>Landscape Learning for Neural Network Inversion</td>
<td>Ruooshi Liu, Chengzhi Mao, Parvin Tendolkar, Han Wang, Corn Vondrick</td>
<td>Room “Foyer Sud”</td>
<td>015</td>
</tr>
<tr>
<td>Wednesday 4th</td>
<td>Posters</td>
<td>Diffusion in Style</td>
<td>Martin Nicolas Everaert, Marco Bocchio, Samir Arpa, Sabine Susstrunk, Radhakrishna Achanta</td>
<td>Room “Foyer Sud”</td>
<td>016</td>
</tr>
<tr>
<td>10:30 AM - 12:30 PM</td>
<td>Generative models</td>
<td>NEMTO: Neural Environment Matting for Novel View and Relighting Synthesis of Transparent Objects</td>
<td>Dongqiang Wang, Tong Zhang, Sabine Susstrunk</td>
<td>Room “Nord”</td>
<td>014</td>
</tr>
<tr>
<td>Wednesday 5th</td>
<td>Exhibition</td>
<td>DDColor: Towards Photo-Realistic Image Colorization via Dual Decoders</td>
<td>Xiaoyang Kang, Tao Yang, Wendi Ouyang, Peiran Ren, Lingzhi Li, Xruansong Xie</td>
<td>Room “Nord”</td>
<td>019</td>
</tr>
<tr>
<td>10:30 AM - 12:30 PM</td>
<td>Exhibition</td>
<td>IntrinsicNeRF: Learning Intrinsic Neural Radiance Fields for Editable Novel View Synthesis</td>
<td>Weicai Ye, Shuo Chen, Chong Bao, Hujun Bao, Marc Pollefeys, Zhaopeng Cui, Guofeng Zhang</td>
<td>Room “Nord”</td>
<td>016</td>
</tr>
</tbody>
</table>
PAMITC
Meeting
Thrs Oct 5
18.00-19.00
Reception
Wed Oct 4
18:30-20:00
Access

https://iccv2023.thecvf.com/Live
Use your ICCV registration email

Find papers by titles and paper IDs

News: stay tuned!

Store interesting papers and sessions

Live stream of oral sessions
Ask questions to authors off-line and during oral presentations
ICCV 2023 Best Paper Awards
Paper Awards Committee

• Dima Damen – University of Bristol (chair)
• Angela Dai - Technical University of Munich
• Steve Lin – Microsoft Research Asia
• Chen Change Loy - Nanyang Technological University
• Dimitris Samaras - Stony Brook
• Yoichi Sato - University of Tokyo
• Gül Varol - École des Ponts ParisTech
• Lihi Zelnik-manor - Technion
Process

17 papers (2 area chair recommendations)

Reviewing papers, reviews, meta-reviews & author response

3 triplets – top 3 paper selection w/ justification

7 papers reviewed by all committee members

Meeting for decision w/ student paper info
Initial list (from PCs)

1. Adding Conditional Control to Text-to-Image Diffusion Models – Zhang et al.
3. DiffusionDet: Diffusion Model for Object Detection – Chen et al.
7. Scale-MAE: A Scale-Aware Masked Autoencoder for Multiscale Geospatial Representation Learning – Reed et al.
8. Segment Anything - Kirillov et al.
9. Shape Analysis of Euclidean Curves under Frenet-Serret Framework – Chassat et al.
10. The Victim and The Beneficiary: Exploiting a Poisoned Model to Train a Clean Model on Poisoned Data – Zhu et al.
11. Tracking Everything Everywhere All at Once – Wang et al.
14. Viewing Graph Solvability in Practice - Arrigoni et al.
15. VQ3D: Learning a 3D-Aware Generative Model on ImageNet – Sarget et al.
17. Zip-NeRF: Anti-Aliased Grid-Based Neural Radiance Fields – Barron et al.
Best Student Paper
Best Student Paper

Tracking Everything Everywhere All At Once

Qianqian Wang$^{1,2}$  Yen-Yu Chang$^1$  Ruojin Cai$^1$  Zhengqi Li$^2$
Bharath Hariharan$^1$  Aleksander Holynski$^{2,3}$  Noah Snavely$^{1,2}$

$^1$Cornell University  $^2$Google Research  $^3$UC Berkeley
Best Paper Honorable Mention
Best Paper Honorable Mention

Segment Anything

Alexander Kirillov  Eric Mintun  Nikhila Ravi  Hanzi Mao  Tete Xiao
Spencer Whitehead  Alexander C. Berg  Wan-Yen Lo  Chloe Rolland
Laura Gustafson  Piotr Dollar  Ross Girshick

Meta AI Research, FAIR
Best Paper (Marr Prize)
Best Paper (Marr Prize)
Joint Award – 2 papers
Best Paper (Marr Prize)

Passive Ultra-Wideband Single-Photon Imaging

Mian Wei    Sotiris Nousias    Rahul Gulve
David B. Lindell    Kiriakos N. Kutulakos

University of Toronto
Best Paper (Marr Prize)

Adding Conditional Control to Text-to-Image Diffusion Models

Lvmin Zhang       Anyi Rao       Maneesh Agrawala
Stanford University
PAMITC awards

● Each award is chaired by a member of the PAMITC awards committee

● Nominations are solicited from the community in the PAMITC newsletter

● Conflict of interest policies are in place
PAMITC awards at ICCV

- Helmholtz prize: a paper from ICCV 10 years ago that has withstood the test of time
- Mark Everingham prize: for furthering progress in the Computer Vision community
- Distinguished researcher award: researchers whose contributions have significantly contributed to the progress of Computer Vision.
- Azriel Rosenfeld Lifetime Achievement award: a researcher who has made significant contributions to the field of Computer Vision over longtime careers
Helmholtz prize

Action recognition with improved trajectories

Heng Wang, Cordelia Schmid

Award committee:
Rama Chellappa
Jitendra Malik (chair)
Gerard Medioni
PAMI Everingham Prize Winner 2023

The Ceres Solver open source non-linear optimization software library

Sameer Agarwal, Keir Mierle and collaborators

for outstanding software that has empowered so many algorithms in the vision community and beyond, including COLMAP, Blender, OpenMVG and Panorama mobile apps.
The Common Objects in Context (COCO) dataset

Tsung-Yi Lin, Genevieve Patterson, Matteo R. Ronchi, Yin Cui, Michael Maire, Serge Belongie, Lubomir Bourdev, Ross Girshick, James Hays, Pietro Perona, Deva Ramanan, Larry Zitnick, Piotr Dollár

for a dataset that has enabled a wide range of computer vision tasks including object instance segmentation and image captioning.
PAMI Distinguished Researcher Award

Award committee:
Andrew Blake
Luc van Gool
Bill Freeman
Richard Hartley, Chair
Jitendra Malik
Shree Nayar
Pietro Perona
Cordelia Schmid
Rick Szeliski
Demetri Terzopoulos
Andrew Zisserman

Michael Black
(MPI)

Rama Chellappa
(JHU)
PAMI Azriel Rosenfeld Lifetime Achievement Award

Award committee:
Ruzena Bajcsy
Olivier Faugeras
Takeo Kanade, Chair
Jan Koenderink
Tomaso Poggio
Shimon Ullman

Ted Adelson
(MIT)
Some closing words on `enjoy the conference`

Learn new things ..

Meet new people …

Don’t get Covid
Enjoy the conference!