

instance-level recognition workshop

ECCV 2024

<https://ilr-workshop.github.io/ECCVW2024>

presented by Giorgos Tolias

Google DeepMind



SEOUL
NATIONAL
UNIVERSITY

amazon

organizers



Andre Araujo



Bingyi Cao



Kaifeng Chen



Nikolaos Ypsilantis



Ondra Chum



Giorgos Tolias

Google DeepMind



Noa Garcia



Guangxing Han



Bohyung Han



Hao Yang



Xu Zhang



大阪大学
OSAKA UNIVERSITY



SEOUL
NATIONAL
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workshop series



*1st Landmark
Recognition
Workshop*



*2nd Landmark
Recognition
Workshop*



*3rd Instance-Level
Recognition Workshop*



*4th Instance-Level
Recognition Workshop*



*5th Instance-Level
Recognition Workshop*



*6th Instance-Level
Recognition
Workshop*

instance-level class definition

“we, the architects of the machine, must decide a-priori what constitutes its world; what things are to be taken as similar or equal” — Karl Popper, 1963

- each object* instance of the real world forms a class
 - visually indistinguishable instances are merged into a single class

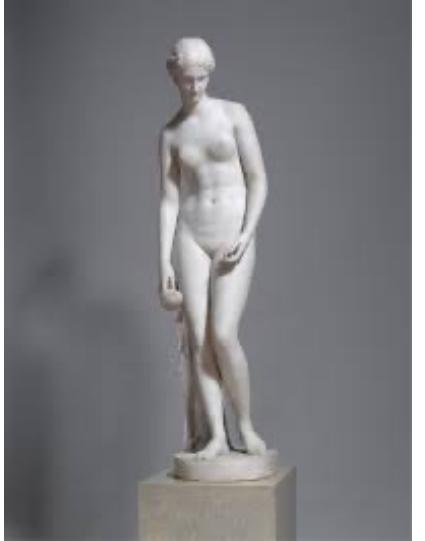
*: scene, event, ...

instance-level class definition

- coarse-level class
 - artwork
- fine-grained class
 - sculpture
- instance-level class
 - **Clytie** by William Henry Rinehart



instance-level class definition



instance-level class definition



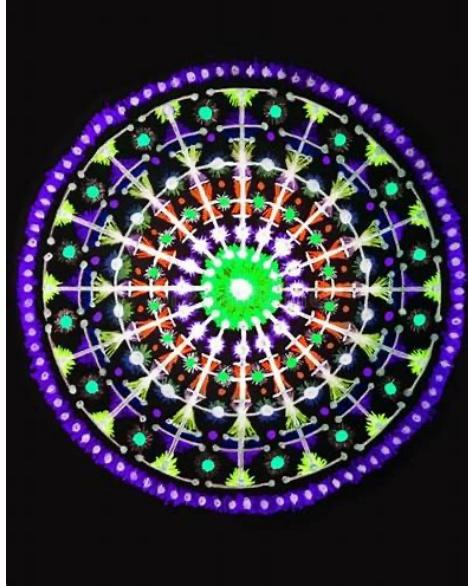
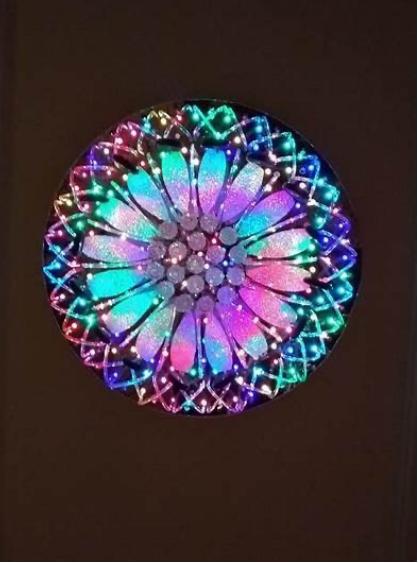
iPhone SE gen 1 - white



instance-level class definition



mandala LED light - LUMINO ROSONE GOTICO



instance-level tasks

- retrieval



[figure: Iscen et al.]



[figure: Kordopatis et al.]

- classification



→ Basilica of St. Ludmila

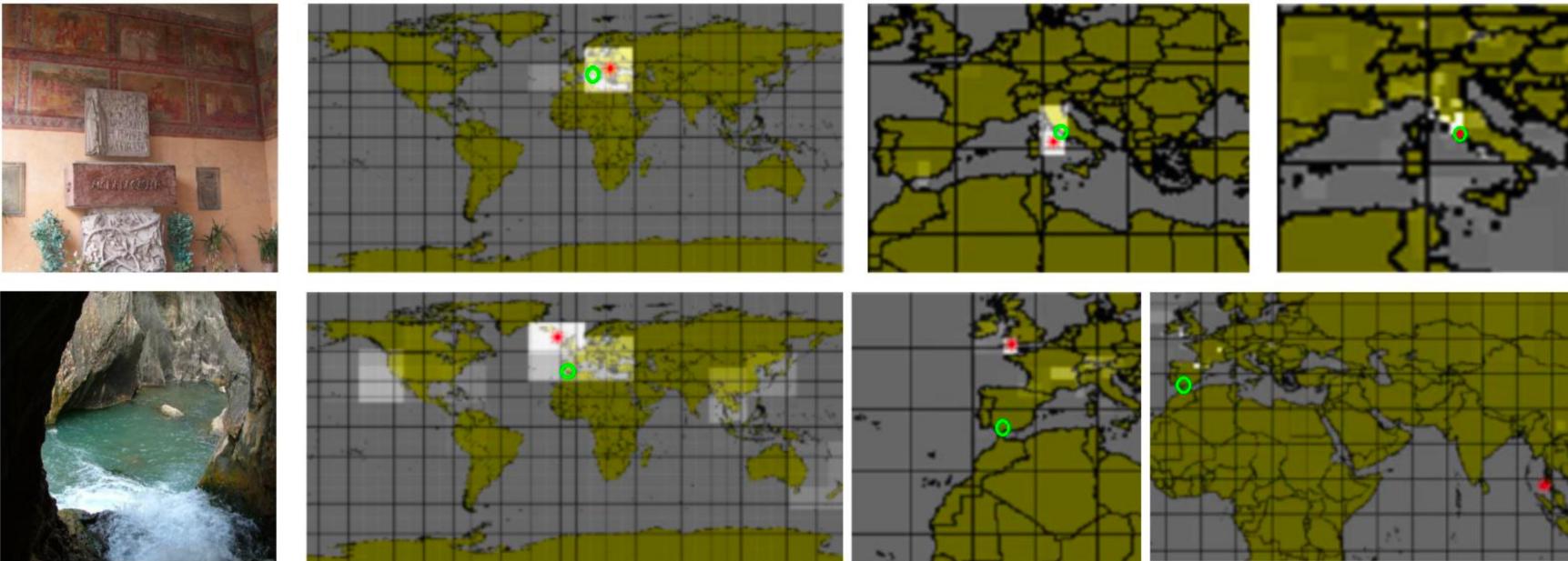
- detection



[figure: Osokin et al.]

instance-level tasks

- geolocation



[figure:Vo et al.]

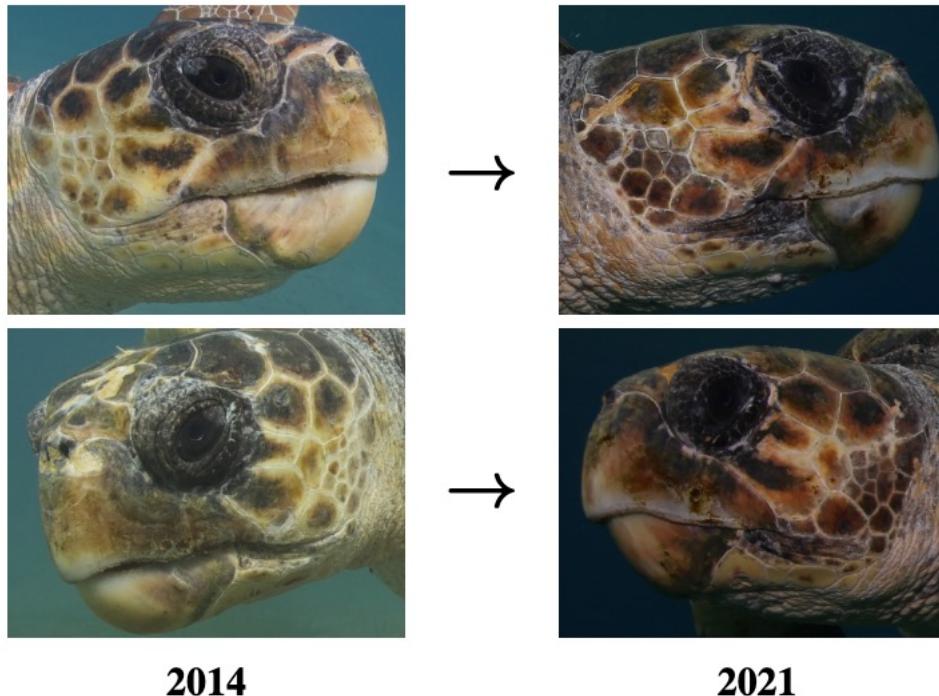
instance-level tasks

- re-identification



instance-level tasks

- re-identification



[figure: Adam et al.]

instance-level tasks

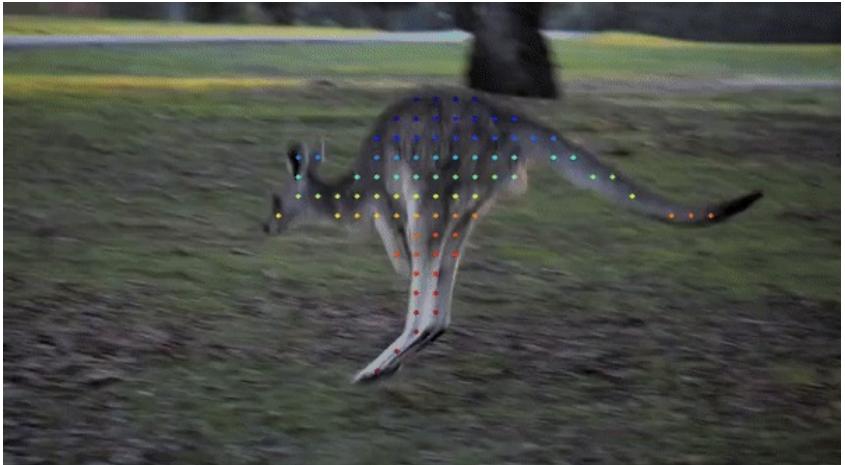
- instance-level (personalized) image generation



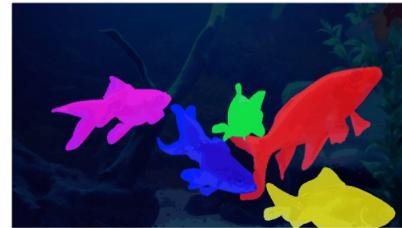
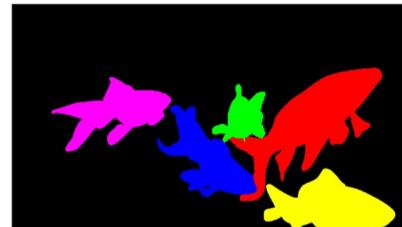
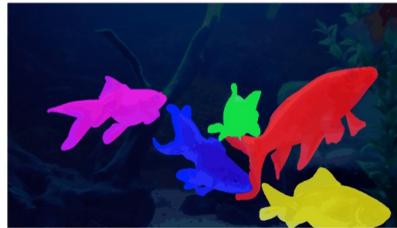
[figure: Avrahami et al.]

instance-level tasks

- video object tracking/segmentation



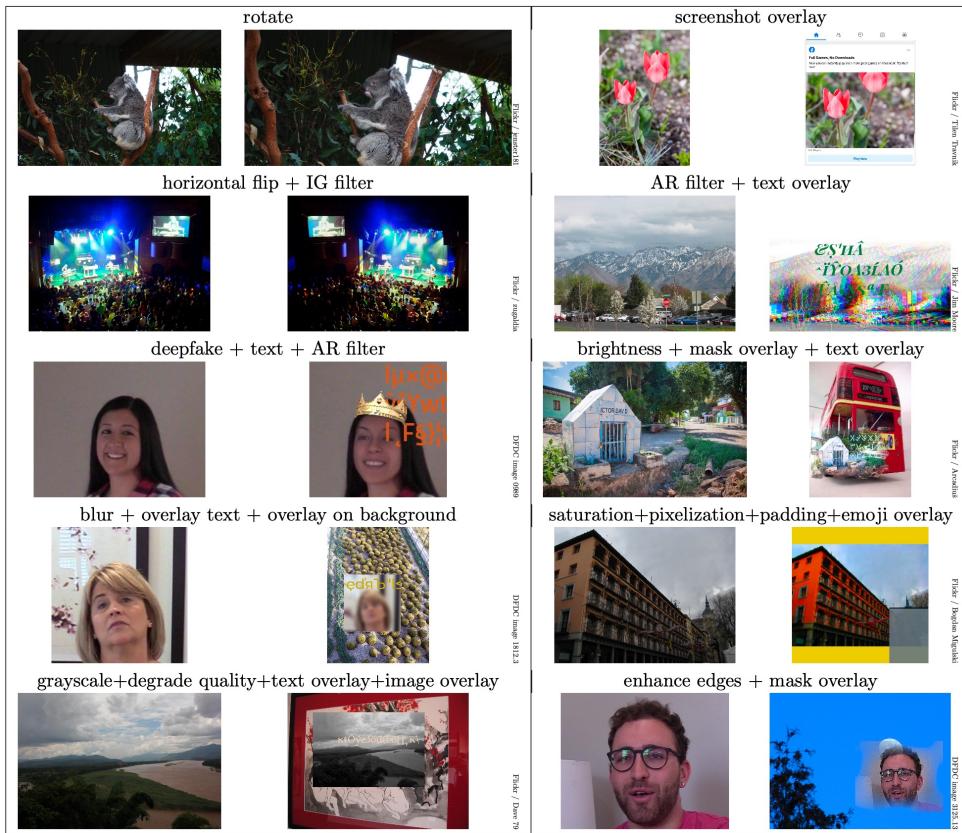
[video: Wang et al.]



[video: Bertrand et al.]

instance-level tasks

- image/video copy detection



[figure: Douze et al.]

instance-level tasks

- referring expression segmentation

main guy on the tv



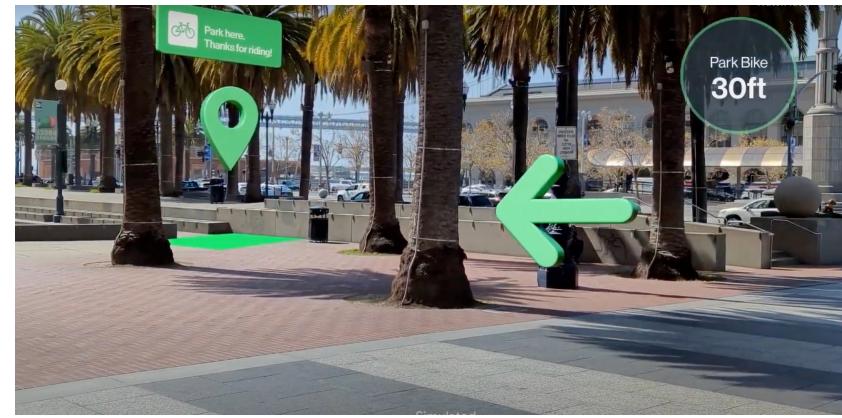
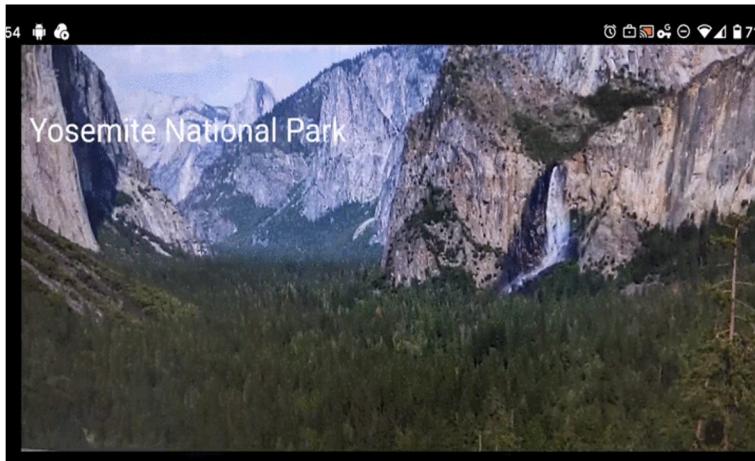
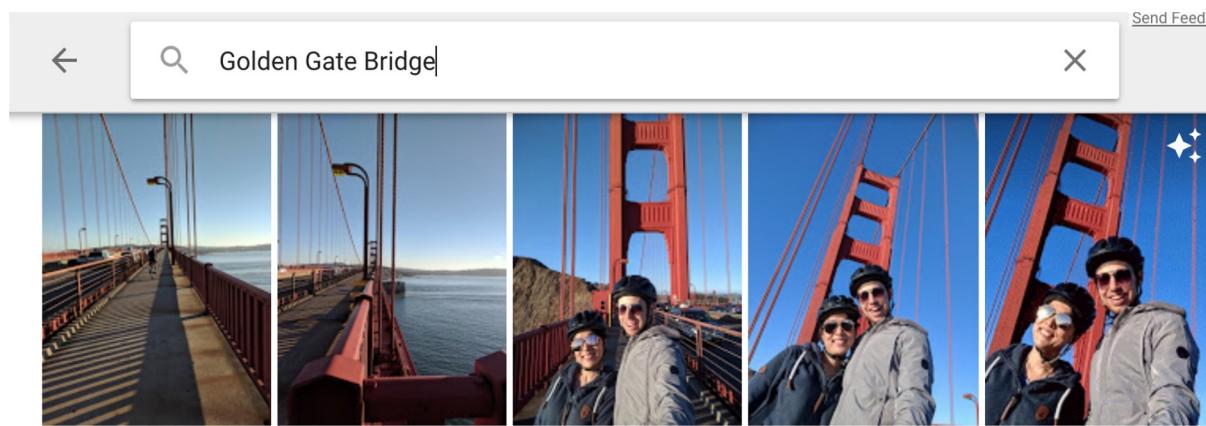
- text-to-image retrieval

"There is a room with a foosball table somewhere. [Can you please show me where it is?]"



[figure: Chen et al.]

many real-world applications



[credit: geospatial world]



common challenges of ILR tasks

- very large number of classes
 - recognition and annotation challenges
- high inter-class similarity
 - object details matter
- invariance challenges
 - viewpoint and lighting changes
 - occlusions and clutter
- open-world setup
- long-tail distribution

call for papers

- 16 paper submissions
 - 8 long papers
 - 8 short papers
- 5 accepted papers
 - 2 long papers (oral)
 - 3 short papers (poster)
- chairs: Noa Garcia and Bohyung Han
- 22 reviewers
 - Andre Araujo
 - Giorgos Kordopatis-Zilos
 - Jingru Yi
 - Nikolaos-Antonios Ypsilantis
 - Shiyuan Huang
 - Yuan Li
 - Bingyi Cao
 - Giorgos Tolias
 - Jooyoung Lee
 - Nitesh Sekhar
 - Songyao Jiang
 - Zakaria Laskar
 - Christy Li
 - Guangxing Han
 - Kaifeng Chen
 - Ondrej Chum
 - Varad Gunjal
 - Fenggen Yu
 - Hao Yang
 - Moulik Choraria
 - Pavel Suma
 - Xu Zhang
- invited papers: 3 orals and 7 posters

schedule

- **9:00am-9:10am:** Welcome Remarks
- **9:10am-9:40am:** Keynote 1 - Cordelia Schmid
- **9:40am-10:05am:** Oral session (accepted papers)
- **10:05am-11:05am:** Poster session & Coffee break
- **11:05am-11:35am:** Keynote 2 - Giorgos Kordopatis-Zilos
- **11:35am-12:05pm:** Oral session (invited papers)
- **12:05pm-12:35pm:** Keynote 3 - Varun Jampani
- **12:35pm-12:40pm:** Closing Remarks

enjoy

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ilr-workshop@googlegroups.com