

## **Reading Group**

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Dear PhD. Students,

As customary at the International Computer Vision Summer School, you will have the opportunity to participate in the Reading Group, which is designed to facilitate interaction with lecturers as well as peers, and to foster reflection on the roots that lead to scientific development as presented in the lectures.

Below you will find instructions (amd FAQ) on this year's reading group format as well as the schedule for meeting with your Mentors and participating in the panel discussion. There will be some action items for you before traveling to the school.

We look forward to seeing you in Sicily!

## **Rules of Engagements**

BEFORE TRAVELING TO THE SCHOOL: Please find enclosed in this document references that your Mentors have selected as having been 'pivotal' in their career. Papers or books that inspire them, motivated them, surprised them, and in general were instrumental to them being where they are today. Please find these references (on line, at the library, wherever) and read them.



ON MONDAY AT THE SCHOOL: You will meet with your Mentors and have an opportunity to ask them questions, discuss your thoughts on the references, debate how you see the connected to the topics they will present/have presented in their lectures (you can preview the topics), and in general how precisely were these references pivotal in their career. At the end of your peer-group meeting you will self-organize and appoint/elect a group leader and a group secretary, who will lead and report on the findings/discoveries of the group. Feel free to choose the form of government you wish, from anarchy to dictatorship. This will matter on Friday (see below).

BEFORE THURSDAY AT THE SCHOOL: You will meet again with your peer group - at a time and place of your choosing - to collate/organize/debate your thoughts in light of more reflection, evidence presented at the lectures, and prepare a short summary of the findings of your group. This summary will be read by the Mentors, who will then pick a subset to participate in the Reading Group Panel.

THURSDAY AT THE SCHOOL: A subset of the group leaders will be selected to participate in the panel discussion along with Mentors. They will report on their findings, participate in additional discussion on the role of 'seed papers' in research.

FRIDAY AT THE SCHOOL: A peer group will be selected as winner of the reading group competition and receive a cash award of EUR1,000, to be shared among members of the group or appropriated by the group leader or secretary depending on the choice of government instated on Monday.

**FAQ** 



A: An email with indication about the groups has been send by email to all the Ph.D Students.

Q: Can I get in touch with my peers before the school? Can I get their emails?

A: Unfortunately we are bound by privacy laws and we cannot diffuse participants' contact info (including email). However, feel free to use the FB Group for ICVSS to reach your peers.

Q: Can I change mentor?

A: Unfortunately there is no assignment that will satisfy all participants, so in the interest of fairness the groups have been divided randomly. You will be able, however, to benefit from the discussion in other Mentors' groups at the panel discussion.

Q: Even if I am not in Mentor-X group, can I still attend his/her reading group?

A: Mentors are given group participants' names and will check participation.

Q: My mentor is speaking after the Reading Group events (mentor meeting, peer group meeting, panel discussion) have already occurred. Can we move these events to Friday?

A: Unfortunately the schedule of events is arrived at by negotiating many conflicting requirements, so most lectures occur after some or all Reading Group events. Nevertheless, Mentors have plenty of material on-line that you can access in preparation with your meetings and discussions.

Q: Is the participation to the reading group obligatory?

A: Reading group is optional, but it is strongly suggested.



Q: What if I do not want to participate in the Reading Group?

A: A missed opportunity is a lost opportunity.

Q: If I have questions for the mentor, can i contact him/her outside the Mentor Meeting schedule for Monday?

A: The format of the school is meant to facilitate interaction. Meals and evenings are a great time to approach your mentors for discussion. Please use discretion and common sense to make it a pleasant interaction.

Q: I don't like this 'self-organization' business: Can you give more specific instructions on how to select a group leader and secretary?

A: Part of the experience is to learn how to interact with your peers, so such a loose organization is by design.

## **GROUPS**

	GROUP LEADS	KEY INSPIRATION
GROUP 1	Bill Freeman	Vision, David Marr
	(Soatto)	Natural Computation, Witman Richard
		Interpreting images by propating Bayesian beliefs, Yair Weiss
	Michael Black	Vision, David Marr
		Ecological Approach to Visual Perception, James Gibson



		(Bayesian Modeling of Uncertainty in Low-Level Vision, Rick Szeliski)
		(Robot Vision, Berthold Horn)
		(Stochasatic Relaxation, Geman & Geman)
		(Visual Reconstruction, Blake & Zisserman)
GROUP 2	Bernt Schiele	DPM - PAMI - http://cs.brown.edu/~pff/papers/lsvm-pami.pdf
	Devi Parikh	Building machines that learn and think like people, B. Lake et al.
		The bandwagon, C. Shannon
GROUP 3	Andrey Karpathy	Recognition-by-Components: A Theory of Human Image Understanding by Biederman
	Antonio Torralba	SHRDLU from Terry Winograd
GROUP 4	Pietro Perona	J.J. Gibson ``The theory of affordances" <a href="http://cs.brown.edu/courses/cs137/readings/Gibson-AFF.pdf">http://cs.brown.edu/courses/cs137/readings/Gibson-AFF.pdf</a>
		Tinbergen, Niko. "On aims and methods of ethology." Zeitschrift für Tierpsychologie 20, no. 4 (1963): 410-433. <a href="http://apophenia.wdfiles.com/localfiles/start/tinbergen.pdf">http://apophenia.wdfiles.com/localfiles/start/tinbergen.pdf</a>
	Koray Kavu	Sparse coding with an overcomplete basis set: a strategy employed by v1?
		B. A. Olshausen and D. J. Field.
		Gradient-Based Learning Applied to Document Recognition
		Y. LeCun, L. Bottou, Y. Bengio and P. Haffner



		Reducing the Dimensionality of Data with Neural Networks
		G. E. Hinton* and R. R. Salakhutdinov
GROUP 5	Sergey Levine	The free-energy principle: a unified brain theory? Karl Friston
		Fast, cheap, and out of control: a robot invasion of the solar system, R. Brooks
	Jamie Shotton	https://www.cs.cmu.edu/~efros/courses/LBMV07/Papers/viola-cvpr-01.pdf
		http://research.microsoft.com/pubs/67890/siggraph04-grabcut.pdf