

Computer Vision - 2025

Week #15. Student Projects

Lectures by Alexei Kornaev ^{1,2,3}

Practical sessions by Kirill Yakovlev ²

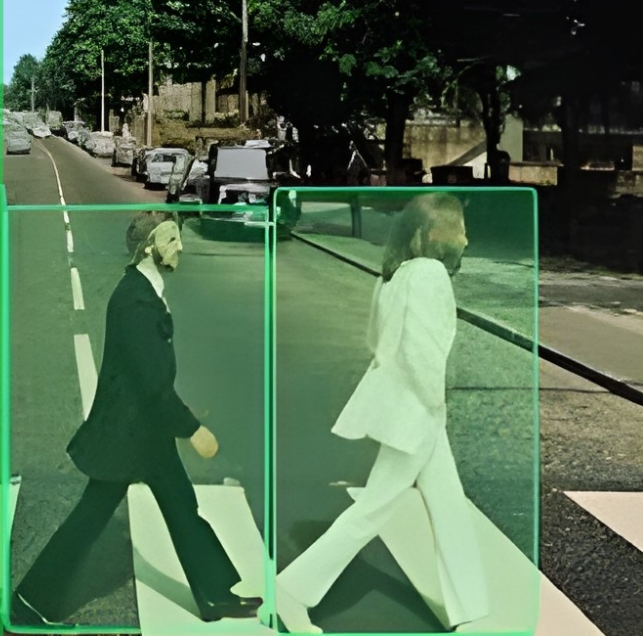
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May 16, 2025



Agenda

CV-2025

A.Kornaev,
K.Yakovlev

Introduction

Projects

① Introduction

② Projects

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Projects

Section 1. Introduction

Presentation Time-Line

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Each presentation: 10 min talk + 10 min Q&A

- **Introduction (1-2 min)**
Problem formulation and motivation
- **Methodology (2-3 min)**
Key idea, data, and models used
- **Results and Discussion (4-6 min)**
Experiments, results, figures, analysis
- **Conclusion and Prospects (1 min)**
Summary, limitations, next steps

Publication Recommendations

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Recommended Conferences and Journals:

- **Russian AI Conferences**
 - **XXII Russian Conference on Artificial Intelligence**, SPB, May 31, 2025
 - **AI Journey 2025** (Moscow) + *Doklady Mathematics*, Deadline: Aug 20, 2025
- **International (A*) Venues**
 - **NeurIPS 2025 Workshops**, Deadline: Sept 2025
 - **ICRA 2026** + *IEEE RA-L*, Deadline: Sept 2025
 - **ICLR 2026**, Deadline: Nov 2025
- **Journals**
 - *Russian Journal of Nonlinear Dynamics*
 - *Pattern Recognition Letters*, *CVIU*, *IEEE TNNLS*, etc.

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Section 2. Projects

Project Presentation Schedule (Start: 5:00 pm)

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5:00 **George Rozanov** - Improving the Accuracy and Performance of Portable CV Systems

5:20 **Danila Moskvitin** - Generative Models for Domain Parameterization and Training of Generalized PINNs

5:40 **Vyacheslav Koshman** - Real-time Human Action Recognition

6:00 **Dmitry Babkov, Zlata Mishustova** - Vision-Language and Navigation Models for Mobile Robots

6:20 **Ilya Milyoshin, Anton Kirilin** - Improved Method for Constructing a Depth Map

6:40 **Alik Valiullin, Gleb Stoyko** - Vision and Language Guided Robotic Manipulation System

7:00 **Damir Nurtdinov** - Collision-Aware Cable-Driven Parallel Robot with RL and CV