

Luesia-Lahoz, Pablo



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### Address

C. de Mariano Esquillor Gómez, 50018, Zaragoza Spain

## Pablo Luesia-Lahoz

## PhD Candidate at Graphics and Imaging Lab, Universidad de Zaragoza (Spain)

### **Education**

2021 Present Universidad de Zaragoza, PhD candidate

PhD candidate supervised by Adolfo Muñoz and Diego Gutierrez. On computer graphics, computational imaging, Non-Line-of-Sight imaging, and transient imaging. 175 hours of experience in teaching undergraduate and master's students with a highly positive assessment.

2019 2020 - Universidad de Zaragoza, Master's Degree

Master's Degree in Computer Engineering. Average grade: 8.25 out of 10

20142018

Universidad de Zaragoza, Bachelor's Degree

Bachelor's Degree in Computer Engineering with a major in Computing. Average grade: 7.64 out of 10

### **Research Experience**

Apr 2024 -Jul 2024 University of Wisconsin-Madison, International Internship

International internship under the supervision of prof. Andreas Velten at the University of Wisconsin-Madison, and in collaboration with the Computational Optics Group. The research focuses on pushing the boundaries of NLOS imaging for looking around corners.

Nov 2021 -Present

Graphics & Imaging Lab (Universidad de Zaragoza - I3A), PhD candidate

PhD candidate under the supervision of Prof. Adolfo Muñoz and Prof. Diego Gutierrez. The research focuses on transient illumination, looking around corners, and virtual wave optics. Funded by *Ministerio de Ciencia e Innovación (Gobierno de España)* with the competitive grant FPI 2020. *Taught 175 hours of teaching to undergraduate students with a highly positive assessment.* 

Jan 2021 -Jun 2021 Universidad de Zaragoza, Research project collaboration

E. Coli bacteria simulation for the production of citramalate in the *Instituto Universitario de Investigación en Ingeniería de Aragón (I3A)*. Detailed achievements:

- Learned how to use a cluster for heavy simulations.
- Acquired experience with the design and implementation of virtual cell models.



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# Sep 2019 - Universidad de Zaragoza, Research Project Intership Dec 2020

Design and implementation of a system for the automatic analysis of the drone sperm cells of drones (honey bees). Funded by a competitive scholarship granted by the *Gobierno de Aragon*, in the *Instituto Universitario de Investigación en Ingeniería de Aragón (I3A)* for the Master Thesis Project.

### **Publications**

#### **Journals**

### JCR Q1 Non-line-of-sight in the presence of scattering media

Pablo Luesia, Miguel Crespo, Adrian Jarabo, and Albert Redo-Sanchez

Optics Letters 47.15 (2022): 3796-3799. DOI: https://doi.org/10.1364/OL.463296

# JCR Q1 Cohesive framework for non-line-of-sight imaging based on Dirac notation

Albert Redo-Sanchez, Pablo Luesia-Lahoz, Diego Gutierrez, Adolfo Muñoz.

Optics Express 32.6 (2024): 10505-10526.
DOI: https://doi.org/10.1364/0E.518466

Conference

# **Core B** Zone Plate Virtual Lenses for Memory-Constrained NLOS Imaging

Pablo Luesia-Lahoz, Diego Gutiérrez, and Adolfo Muñoz ICASSP 2023 - 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Rhodes Island, Greece, 2023, pp. 1-5

DOI: https://doi.org/10.1109/ICASSP49357.2023.10094929

## **Teaching and Supervision**

#### **Teaching**

Experience in 175 hours at the University of Zaragoza (*Universidad de Zaragoza*):

# 2022 - Computer Graphics (158 hours) Present

Degree on Computer Sciences Engineering. Received an outstanding positive assessment from the students.

# 2024 - Fundamentals of Computing (7.5 hours) Present

Master on Robotics, Graphics and Computer Vision in the University of Zaragoza *Universidad de Zaragoza*. Received an outstanding positive assessment from the students.

# 2022 - Fundamentals of Computing (10 hours) 2024

Degree in Industrial Technology Engineering



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#### Former students

2024 Jorge Solán Morote

Bachelor thesis. "Simulation of ultra-fast photon capture hardware in light transportation." Graded with a 9 out of 10.

2023 Isaac Velasco

Internship "Geometry optimization using normal information in Non-Line-of-Sight imaging".

2023 Ayush Gupta

Internship "Evaluation of the Fourier components in a Transient Signal".

### **Divulgation activities**

8-11 Aug Assistance to ACM SIGGRAPH 2022

2022

Presentation of the poster "Non-line-of-sight Transient Rendering".

30 Sep European Researchers' Night

2022

Divulgation experiments for a general public of all ages: "Create your own virtual character".

15 July XII Jornada de Jóvenes Investigadores/as

2023

Presentation of the poster "Zone Plate Virtual Lenses for Memory-Constrained NLOS Imaging".

29 Sep European Researchers' Night

2023

Divulgation experiments for a general public of all ages: "Create your own virtual character", "Learn about Virtual Reality", and "How is color composed?".

18-22 Mar XV Engineers Week 2024

Divulgation activities for a high-school public to present the research of the Graphics & Imaging lab.

20 Mar XII Aragon Girls' Day 2024

Divulgation activities from in collaboration with the Graphics & Imaging lab to a high-school-aged public focused on making visible the researcher women.



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## **Volunteer Experience**

2014 present - Aragón (Spain), Free Time Monitor

Experience in camps with kids from 8 to 16 years old. Approved Free Time Monitor Title by the Instituto Aragones de la Juventud (IAJ), in Spain.

### Other interest data

### **Programming languages**

JavaPythonHaskellC++MatlabProLog

### Languages

• **Spanish** Mother language

• English Advanced (CERT C1 certificate emitted by the British

Council with the Aptis ESOL)

French Basics

### **Mobility**

- o Erasmus stay in Sweden for 6 months (Jan 2019 Jun 2019).
- o Internship in Madison (Wisconsin) for 3 months (May 2024 July 2024).

### **Interests**

#### **Professional**

Research in the computational imaging field, transient luminescence and rendering, non-line-of-sight and virtual wave optics

#### **Personal**

Cooking, rock climbing, reading, guitar, drawing