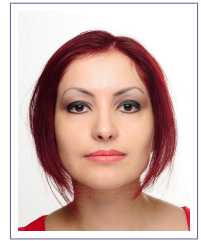


# Dr. Shida Kunz (née Beigpour)

## Resumé

Schloss Dagstuhl  
Saarland University, Campus E1.1  
66123 Saarbrücken, Germany  
✉ [shida@dagstuhl.de](mailto:shida@dagstuhl.de)



## INFO

Nationality German

Homepage <https://www.dagstuhl.de/ueber-dagstuhl/organisation/shida-kunz/>

Research <https://shida-kunz.github.io/>

Linkedin <https://www.linkedin.com/in/shidabeigpour>

## CURRENT STATUS

Affiliation Scientific Staff at Schloss Dagstuhl – Leibniz Center for Informatics, Saarbrücken, Germany

## ACADEMIC BACKGROUND

2013

**PhD. with honors<sup>1</sup> in Informatics – Computer Vision**, *Computer Vision Center (CVC), Universitat Autònoma de Barcelona (1st in Spain)<sup>2</sup>*, Bellaterra, Spain, Thesis titled: “Illumination and object reflectance modeling” – Certificate was awarded on June 21st.

2009

**Master of Science in Artificial Intelligence and Computer Vision**, *Universitat Autònoma de Barcelona (1st in Spain)<sup>2</sup>*, Bellaterra, Spain, [Projects included: Object Segmentation and Classification, Graphical Models, Bag of Words, Object Tracking and Particle Filters, 3D Reconstruction, Neural Networks, Semantic Web and Ontology, Heuristic Search, and Multi-agent Systems] – GPA 90.8% – Ranked 4th out of 28 students.

2007

**Bachelor of Engineering in Software Engineering, with honors**, [Projects included: Motion Capture using Optical Flow and Shape Matching, Database System, Semantic Web Ontology, Compilers and Programming Languages, Network and Internet Engineering, Software Design]. GPA 82.65% – Second best in Computer Engineering graduate year of 2007 (among 80 students)

## RESEARCH INTERESTS

Graphics Augmented/Virtual Reality, Reflectance and Illumination, Image-based Rendering, Light Field

Vision Computer Vision and Pattern Recognition, Computational Photography, Inverse Rendering and Intrinsic Image Characterization, RGB-D and 3D Scene Analysis, Dataset Acquisition and Benchmarking, Computational Color Constancy, Color Vision, Multispectral and Multimodal Imaging and Sensor Fusion, Psychophysics and Perception.

- 
1. "Apto Cum Laude" is the maximum mark awarded for a doctoral degree in Spain ([R.D. 99/2011](#))
  2. By the [2012 QS World University Rankings](#) published in [topuniversities.com](http://topuniversities.com)

## LANGUAGES

Self-assessment European level [CEFR](#) (C2 maximum evaluation)

		Comprehension		Speaking		Writing
		Listening	Reading	Interaction	Production	
English	(primary language)	C2	C2	C2	C2	C2
German	(Deutsch)	C2	C2	C2	C2	C1
Spanish	(Castellano)	C2	C2	C1	C1	C1
Catalan	(Català)	B1	B1	A1	A1	A1
Italian	(Italiano)	B1	B1	A1	A1	A1

## IT SKILLS

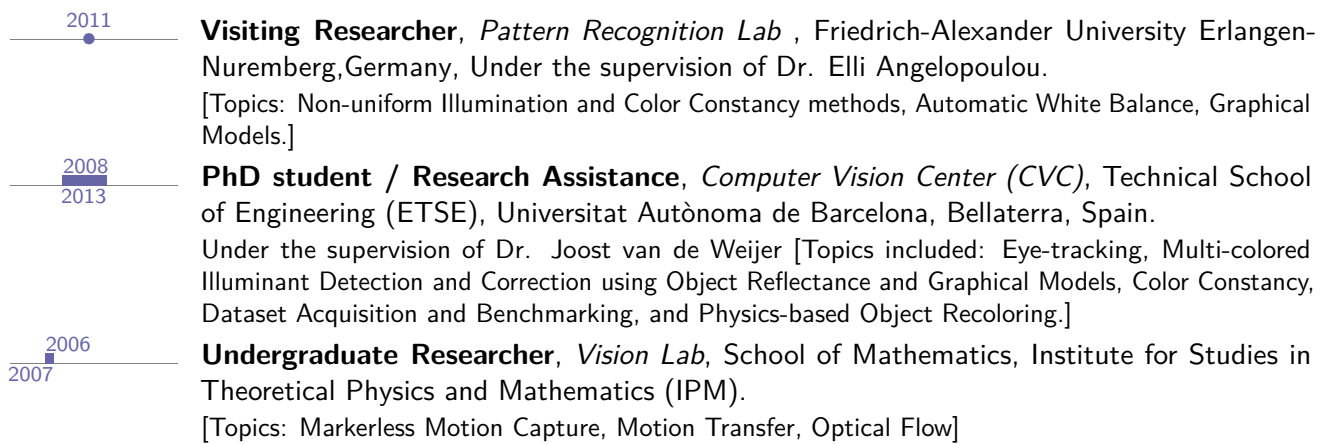
OS	macOS, Windows, and Linux
Programming	Matlab, SQL, PHP, HTML5, CSS3, JavaScript, C#, C/C++, Pascal/Delphi, CUDA, Python, and XML
Multimedia	Adobe Flash (Action Script 2.0), Adobe Photoshop, Adobe Illustrator, 3DsMax, and Blender
Others	Latex, Arduino (robotics), Microsoft Office (PowerPoint, Word, and Excel), and Protégé (ontology editor)

## AWARDS AND FELLOWSHIPS

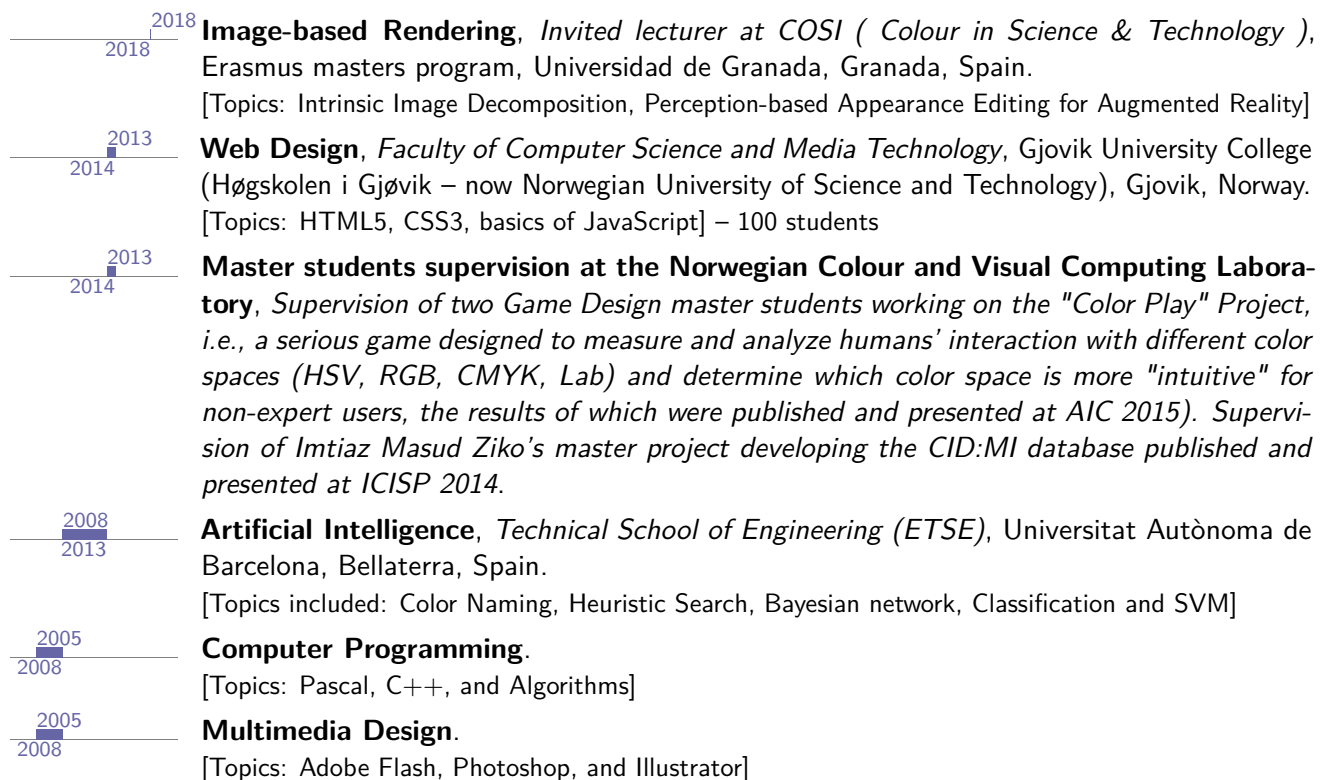
- **Lise-Meitner Award Fellowship:** Max-Planck Postdoctoral Fellowship for Excellent Women in Computer Science. Two-year fellowship grant (July 2016 – July 2018)
- **Second best student** (among 80) in the Computer Engineering Bachelor graduate year of 2007

## SCIENTIFIC EXPERIENCE

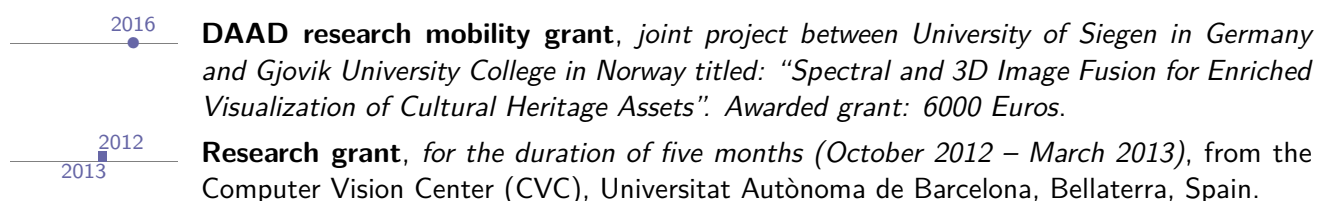
2018	<b>Scientific Staff</b> , Schloss Dagstuhl – Leibniz Center for Informatics, Saarbrücken, Germany.
2016 2017	<b>Lise-Meitner Award fellow</b> , <i>Department 4: Computer Graphics</i> , Max-Planck Institute for Informatics, Saarbrücken, Germany. [Topics: Light Field, Image-based Rendering for Augmented and Virtual Reality, Benchmarking]
2014 2016	<b>Senior Research Scientist</b> , <i>Postdoctoral Fellow at "DFG Graduiertenkollegs 1564 - Imaging New Modalities"</i> , <i>Chair for Computer Graphics and Multimedia Systems</i> , University of Siegen, Germany. [Topics: Inverse Rendering, ToF, 3D imaging, Sensor Fusion, Hyperspectral imaging and data analysis]
2013 2014	<b>Associate Professor</b> , <i>Norwegian Colour and Visual Computing Laboratory</i> , Faculty of Computer Science and Media Technology, Gjøvik University College (Høgskolen i Gjøvik – now Norwegian University of Science and Technology), Norway. [Topics: Gamification and Serious Games, Color Vision, Perception, Benchmarking, Psychophysics]



## TEACHING EXPERIENCE



## GRANTS



2011

**Visiting Researcher**, *Subject of the grant: Short length research stay from the Catalan government (AGAUR)*, for the duration of three month (April 2011 – July 2011), to conduct research at the Pattern Recognition Lab of the Friedrich-Alexander University Erlangen-Nuremberg, Germany.

2008  
2012

**Training Research Staff (PIF – Personal de Investigación en Formación)**, *Technical School of Engineering (ETSE), Universitat Autònoma de Barcelona, Bellaterra, Spain.*

## MEMBERSHIPS IN BOARDS, REVIEWING ACTIVITIES

### Organizer

- "Hyperspectral, Multispectral, and Multimodal (HMM) Imaging: Acquisition, Algorithms, and Applications" Dagstuhl Seminar, October 2017, Schloss Dagstuhl, Germany. Co-organized with: Gonzalo R. Arce (University of Delaware, US), Richard Bamler (DLR – German Aerospace Center), Jon Yngve Hardeberg (Norwegian University of Science and Technology), Andreas Kolb (University of Siegen).

### Committee Member

- Member of the selection committee for the position as Adjunct Associate Professor in Computer Graphics at NTNU, Norway. The committee concluded in 2020, with the decision to be announced soon.
- Member of the selection committee for the Permanent Researcher Position in Spectral Imaging at NTNU, Norway. The committee concluded in 2020, with the decision to be announced soon.
- Member of the selection committee for the Professorship in [Ubiquitous Computing](#) at University of Siegen, Germany. The committee concluded in 2016 by awarding the position to Prof. Dr. Kristof Van Laerhoven.
- Member of the selection committee for the PhD. positions at the [Chair for Computer Graphics and Multimedia Systems](#) in University of Siegen, Germany during 2014-2015

### Reviewer

- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Cybernetics
- IEEE Transactions on Multimedia
- Journal of Mathematical Imaging and Vision (JMIV)
- Journal of Imaging Science and Technology (JIST)
- The Visual Computer journal (TVCI)
- The British Machine Vision Conference (BMVC)

### PhD. Dissertation Reviewer / Member of the PhD. Defense Committee

- Dissertation Reviewer for the PhD. defense of Dr. Marc Serra, September 2015, Title: "Modeling, estimation and evaluation of intrinsic images considering color information", Computer Vision Center (CVC), Universitat Autònoma de Barcelona, Bellaterra, Spain.
- Member of the PhD. Defense Committee at the PhD. defense of Dr. Petr Kellnhofer in November 2016, Saarland University (and MPI for Informatics), Germany.

- Member of the PhD. Defense Committee at the PhD. defense of Dr. Yulia Gryaditskaya in June 2017, Saarland University (and MPI for Informatics), Germany.
- Member of the PhD. Defense Committee at the PhD. defense of Dr. Oliver Nalbach in November 2017, Saarland University (and MPI for Informatics), Germany.

## DATASETS

- 2017  
2018 **Intrinsic Light-field Dataset**, A novel high resolution intrinsic light-field dataset of complex scenes with precise pixel-wise reflectance, shading, specularity, and full 3D geometry ground-truth for intrinsic image research consisting of both real-world and synthetic data, created at the Max-Planck Institute for Informatics.
- 2016 **Multi-view Multi-illuminant Intrinsic Dataset**, A novel high resolution multi-view stereo dataset of complex multi-illuminant scenes with precise pixel-wise reflectance and shading ground-truth, depth, and 3D point cloud for intrinsic image research, created at the Chair for Computer Graphics and Multimedia Systems, University of Siegen.
- 2015 **Multi-Illuminant Intrinsic Image Dataset**, A real-capture intrinsic image dataset with accurate pixel-wise ground-truth for intrinsic image estimation benchmarking in complex multi-illuminant scenes, created at the Chair for Computer Graphics and Multimedia Systems, University of Siegen.
- 2014 **Colourlab Image Database: Multi-Illuminant scene (CID:MI)**, Dataset for multi-illuminant color constancy benchmarking with accurate pixel-wise Groundtruth, created at Norwegian Colour and Visual Computing Laboratory, Gjøvik University College (Høgskolen i Gjøvik – now Norwegian University of Science and Technology), Norway.
- 2014 **Multi-Illuminant Multi-Object (MIMO)**, A real-world dataset for multi-illuminant color constancy benchmarking with accurate pixel-wise Groundtruth, created at the Computer Vision Center (CVC), Universitat Autònoma de Barcelona, Spain.
- 2013 **Synthetic Intrinsic Image Dataset**, Computer graphics generated dataset for intrinsic estimation benchmarking in complex scenes, created at the Computer Vision Center (CVC), Universitat Autònoma de Barcelona, Spain.

## JOURNAL PUBLICATIONS

- 2018 Kunz (Beigpour), Shida, Sumit Shekhar, Mohsen Mansouryar, Karol Myszkowski, and Hans-Peter Seidel. "Light-Field Appearance Editing based on Intrinsic Decomposition". In: *Journal of Perceptual Imaging* 1.1, pp. 10502-1-10502-15.
- 2017 Kunz (Beigpour), Shida, Gonzalo R. Arce, Richard Bamler, Jon Yngve Hardeberg, and Andreas Kolb. "HMM Imaging: Acquisition, Algorithms, and Applications (Dagstuhl Seminar 17411)". In: *Dagstuhl Reports* 7.10, pp. 14–41.
- 2014 Khan, Fahad Shahbaz, Shida Kunz (Beigpour), Joost van de Weijer, and Michael Felsberg. "Painting-91: a large scale database for computational painting categorization". In: *Machine Vision and Applications*.
- 2014 Kunz (Beigpour), Shida, Christian Riess, Joost van de Weijer, and Elli Angelopoulou. "Multi-Illuminant Estimation with Conditional Random Fields". In: *IEEE Transactions on Image Processing (TIP)* 23.1, pp. 83–96.

2014

Ziko, Imtiaz Masud, Shida Kunz (Beigpour), and Jon Yngve Hardeberg. "Design and Creation of a Multi-Illuminant Scene Image Dataset". In: *Image and Signal Processing, Lecture Notes in Computer Science* 8509. (Chosen for oral presentation at the ICISP 2014), pp. 531–538.

## CONFERENCE PUBLICATIONS

2018

Shekhar, Sumit, Shida Kunz (Beigpour), Matthias Ziegler, Michał Chwesiuk, Dawid Paleń, Karol Myszkowski, Joachim Keinert, Radosław Mantiuk, and Piotr Didyk. "Light-Field Intrinsic Dataset". In: *Proc. British Machine Vision Conference (BMVC)*.

2016

Kunz (Beigpour), Shida, Mai Lan Ha, Sven Kunz, Andreas Kolb, and Volker Blanz. "Multi-view Multi-illuminant Intrinsic Dataset". In: *Proc. British Machine Vision Conference (BMVC)*.

2015

Kunz (Beigpour), Shida, Andreas Kolb, and Sven Kunz. "A Comprehensive Multi-Illuminant Dataset for Benchmarking of Intrinsic Image Algorithms". In: *Proc. IEEE International Conference on Computer Vision (ICCV 2015)*.

2015

Kunz (Beigpour), Shida and Marius Pedersen. "Color Play: Gamification for Color Vision Study". In: *AIC 2015, Color and Image, Midterm Meeting of the Association Internationale de la Couleur: Proceedings*. (Chosen for oral presentation). Color Science Association of Japan.

2013

Kunz (Beigpour), Shida, Marc Serra, Joost van de Weijer, Robert Benavente, Maria Vanrell, Olivier Penacchio, and Dimitris Samaras. "Intrinsic Image Evaluation On Synthetic Complex Scenes". In: *IEEE International Conference on Image Processing (ICIP 2013)*.

2011

Bleier, Michael, Christian Riess, Shida Kunz (Beigpour), Eva Eibenberger, Elli Angelopoulou, Tobias Tröger, and André Kaup. "Color constancy and non-uniform illumination: Can existing algorithms work?" In: *Computer Vision Workshops (ICCV Workshops), 2011 IEEE International Conference on*. IEEE, pp. 774–781.

2011

Kunz (Beigpour), Shida and Joost van de Weijer. "Object Recoloring based on Intrinsic Image Estimation". In: *IEEE International Conference on Computer Vision (ICCV 2011)*.

2011

Weijer, Joost van de and Shida Kunz (Beigpour). "The Dichromatic Reflection Model – Future Research Directions and Applications". In: *Int. Joint Conf. on Computer Vision, Imaging and Computer Graphics Theory and Applications*.

2010

Kunz (Beigpour), Shida and Joost van de Weijer. "Photo-Realistic Color Alteration For Architecture And Design". In: *Proceedings of Colour Research for European Advanced Technology Employment (CREATE) Conference*. (Chosen for oral presentation).

2009

Kunz (Beigpour), Shida and Joost van de Weijer. "Object Color Alteration". In: *4th CVC workshop on the progress of research and development (CVCR&D)*. (Chosen for oral presentation).

## THESIS

2013

Kunz (Beigpour), Shida. "Illumination and Object Reflectance Modeling". [Under the supervision of J. van de Weijer]. PhD. thesis. Barcelona, Spain: Computer Vision Center, Universitat Autònoma de Barcelona.

2009

Kunz (Beigpour), Shida. "Physics-based Reflectance Estimation Applied To Recoloring". [Under the supervision of J. van de Weijer]. Master of Science. Barcelona, Spain: Computer Vision Center / Technical School of Engineering, Universidad Autònoma de Barcelona.

## INTERESTS

Theater, Photography, Arduino, Architecture, Animation, Graphics, Languages and Literature, Hiking, Music, Traveling, Steampunk, and Painting.