Dr. Eduardo Pérez-Pellitero

Vision Scientist & Group Leader

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EU Settled Status

Experience

2019–present **Principal Research Scientist & Group Leader**, *Huawei Tech. R&D UK (Ltd)*, London
Lead the 3D Imaging Team (currently 10 scientists) conducting research on new 3D Vision technology, with an emphasis on dynamic 3D sensing, understanding, and generally world modeling.
Daily responsibilities include planning and establishing research for the team, coaching engineers/scientists, filing patents, and top-tier paper publishing, as well as technology transfers to business units:
- Model-based ISP for Autonomous Driving imaging technology (dept. revenue 25.3 Mil.USD)
- HarmonyOS 3dGS-based REMY reconstruction

I also manage academic collaborations with U. of Tübingen and TU München (i.e. funding university groups totaling more than 1Mil. EUR)

2017–2019 **Postdoctoral Scientist**, *Max Planck Institute for Intelligent Systems*, Tübingen
Enrolled in the Computational Imaging Group within the Empirical Inference Department led by Bernhard Schölkopf.

2012–2016 **Research Engineer**, *Technicolor R&I*, Hannover
Enrolled in the Resolution Enhancement Group as a computer vision and image processing researcher.

Education

Jan 2024 **Leadership through Coaching**, *Huawei Cambridge Research Centre*
Course introducing the GROW and other internal toolkits to improve performance via coaching.

2012–2017 **Ph.D.**, *Leibniz Universität Hannover* and *Technicolor*, *Defended in February 2017*
Manifold learning for Super-Resolution Upscaling.

2010–2012 **M.Sc. in Telecommunication Engineering & Management**, *Universitat Politècnica de Catalunya*
Master thesis stay at KU Leuven: *Object detection using the chains model* supervised by L. Van Gool and R. Benenson.

2007–2010 **B.Sc. in Sound and Image Engineering**, *Universitat Politècnica de Catalunya*, obtained the *Third Best Academic Record Award*

Research interests

- World Modelling
- Photorealistic Rendering
- Image Enhancement
- Generative Modelling
- 3D Dynamic Reconstruction
- Inverse Problems

Languages

Spanish	Native	
Catalan		
English	Proficient	*C1 level in CEFR*
German	Upper intermediate	*B2 level in CEFR*
Chinese	Beginner	*A1 level in CEFR*

Awards

2023-2025	Best Technology Breakthrough Award (London Research Center, Huawei)
2022-2026	Outstanding Reviewer at ECCV, ICCV, CVPR×2
2023	Future Star Award (Huawei)
2013	ICIP nomination to Outstanding Paper Award
2010	Third Best Academic Record Award

Publications

[1] A Moreau, R Shaw, M Nazarczuk, J Shin, T Tanay, Z Zhang, S Xu, and **E Pérez-Pellitero**. Off the grid: Detection of primitives for feed-forward 3d gaussian splatting. *CVPR*, 2026.

[2] M Nazarczuk, T Tanay, A Moreau, Z Zhang, and **E Pérez-Pellitero**. Charge: A comprehensive novel view synthesis benchmark and dataset to bind them all. *CVPR*, 2026.

[3] X Gao, Z Zhang, Z Chen, S Xu, L Quan, **E Pérez-Pellitero**, and Y Jang. Map2thought: Explicit 3d spatial reasoning via metric cognitive maps. *CVPR F*, 2026.

[4] T Tanay, M Brahimi, M Nazarczuk, Q Zhang, S Catley-Chandar, A Moreau, Z Zhang, and **E Pérez-Pellitero**. Grvs: a generalizable and recurrent approach to monocular dynamic view synthesis. *CVPR F*, 2026.

[5] J Shin, R Shaw, S Shin, Z Zhang, H-G Jeon, and **E Pérez-Pellitero**. CHROMA: Consistent harmonization of multi-view appearance via bilateral grid prediction. In *ICLR*, 2026.

[6] R Shaw, Y Jang, A Papaioannou, A Moreau, H Dhamo, Z Zhang, and **E Pérez-Pellitero**. An interactive conversational 3d virtual human. *IJCV*, 2026.

[7] X Zhang, S Starke, V Guzov, Z Zhang, **E Pérez-Pellitero**, and Gerard Pons-Moll. SCENIC: Scene-aware semantic navigation with instruction-guided control. *3DV*, 2026.

[8] K Jun-Seong, T Oh, **E Pérez-Pellitero**, and Y Jang. SA-ResGS: Self-augmented residual 3d gaussian splatting for next best view selection. In *review*, 2026.

[9] M Nazarczuk, S Catley-Chandar, T Tanay, Z Zhang, G Slabaugh, and **E Pérez-Pellitero**. ViDAR: Video diffusion-aware 4d reconstruction from monocular inputs. In *NeurIPS*, 2025.

[10] Y Jang and **E Pérez-Pellitero**. CoMapGS: Covisibility map-based gaussian splatting for sparse novel view synthesis. In *CVPR*, 2025.

[11] X Zhang, BL Bhatnagar, S Starke, IA Petrov, V Guzov, H Dhamo, **E Pérez-Pellitero**, and G Pons-Moll. FORCE: Physics-aware human-object interaction. *3DV*, 2025.

[12] H Dhamo, Y Nie, A Moreau, J Song, R Shaw, Y Zhou, and **E Pérez-Pellitero**. HeadGaS: Real-time animatable head avatars via 3d gaussian splatting. *ECCV*, 2024.

[13] S Catley-Chandar, R Shaw, G Slabaugh, and **E Pérez-Pellitero**. RoGUENeRF: A robust geometry-consistent universal enhancer for NeRF. *ECCV*, 2024.

[14] R Shaw, J Song, A Moreau, M Nazarczuk, S Catley-Chandar, H Dhamo, and **E Pérez-Pellitero**. SWinGS: Sliding windows for dynamic 3D gaussian splatting. *ECCV*, 2024.

[15] M Nazarczuk, T Tanay, S Catley-Chandar, R Shaw, R Timofte, and **E Pérez-Pellitero**. AIM 2024 Sparse Neural Rendering Challenge: Dataset and benchmark. *ECCV W*, 2024.

[16] A Moreau, J Song, H Dhamo, R Shaw, Y Zhou, and **E Pérez-Pellitero**. Human gaussian splatting: Real-time rendering of animatable avatars. *CVPR*, 2024.

[17] HJ Jung, W Li, S-C Wu, W Bittner, N Brasch, J Song, **E Pérez-Pellitero**, Z Zhang, A Moreau, N Navab, and B Busam. SCRREAM: Scan, register, render and map: A framework for annotating accurate and dense 3D indoor scenes with a benchmark. *NeurIPS Datasets and Benchmarks*, 2024.

[18] Z Zhang, J Song, **E Pérez-Pellitero**, Y Zhou, HJ Chang, and A Leonardis. NCRF: Neural contact radiance fields for free-viewpoint rendering of hand-object interactions. *3DV*, 2024.

[19] M Nazarczuk, S Catley-Chandar, A Leonardis, and **E Pérez-Pellitero**. Self-supervised HDR imaging from motion and exposure cues. *ECCV W*, 2024.

[20] YK Jang, J Zheng, J Song, H Dhamo, **E Pérez-Pellitero**, et al. VSCHH 2023: A benchmark for the view synthesis challenge of human heads. *ICCV W*, 2023.

[21] S Catley-Chandar, T Tanay, L Vandroux, A Leonardis, G Slabaugh, and **E Pérez-Pellitero**. FlexHDR: Modelling alignment and exposure uncertainties for flexible hdr imaging. *IEEE Trans. on Image Processing*, 2022.

[22] **E Pérez-Pellitero**, S Catley-Chandar, R Shaw, A Leonardis, R Timofte, et al. NTIRE 2022 challenge on high dynamic range imaging: Methods and results. In *CVPR W*, 2022.

[23] R Shaw, S Catley-Chandar, A Leonardis, and **E Pérez-Pellitero**. HDR reconstruction from bracketed exposures and events. In *BMVC (spotlight)*, 2022.

[24] M V Conde, S McDonagh, M Maggioni, A Leonardis, and **E Pérez-Pellitero**. Model-based image signal processors via learnable dictionaries. In *AAAI (oral)*, 2022.

[25] N Dong, M Maggioni, Y Yang, **E Pérez-Pellitero**, A Leonardis, and S McDonagh. Residual contrastive learning for image reconstruction: Learning transferable representations from noisy images. In *IJCAI*, 2022.

[26] **E Pérez-Pellitero**, S Catley-Chandar, A Leonardis, R Timofte, et al. NTIRE 2021 challenge on high dynamic range imaging: Dataset, methods and results. In *CVPR W*, 2021.

[27] **E Pérez-Pellitero**, MSM Sajjadi, M Hirsch, and B Schölkopf. Photorealistic video super resolution. In *ECCV W*, 2018.

[28] **E Pérez-Pellitero**. *Manifold Learning for Super Resolution*. PhD thesis, Leibniz Universität Hannover, 2017.

[29] **E Pérez-Pellitero**, J Salvador, J Ruiz-Hidalgo, and B Rosenhahn. PSyCo: Manifold span reduction for super resolution. In *CVPR*, 2016.

[30] **E Pérez-Pellitero**, J Salvador, J Ruiz-Hidalgo, and B Rosenhahn. Antipodally invariant metrics for fast regression-based super-resolution. *IEEE Trans. Image Processing*, 2016.

[31] **E Pérez-Pellitero**, J Salvador, J Ruiz-Hidalgo, and B Rosenhahn. Half hypersphere confinement for piecewise linear regression. In *WACV*, 2016.

[32] J Salvador and **E Pérez-Pellitero**. Naive Bayes Super-Resolution Forest. In *ICCV*, 2015.

[33] **E Pérez-Pellitero**, J Salvador, J Ruiz-Hidalgo, and B Rosenhahn. Accelerating super-resolution for 4k upscaling. In *ICCE*, 2015.

[34] **E Pérez-Pellitero**, J Salvador, I Torres, J Ruiz-Hidalgo, and B Rosenhahn. Fast super-resolution via dense local training and inverse regressor search. In *ACCV*, 2014.

[35] I Torres, J Salvador, and **E Pérez-Pellitero**. Fast approximate nearest-neighbor field by cascaded spherical hashing. In *ACCV*, 2014.

[36] J Salvador, **E Pérez-Pellitero**, and A. Kochale. Robust Single-Image Super-Resolution using Cross-Scale Self-Similarity. In *ICIP*, 2014.

[37] I Bosch, J Salvador, **E Pérez-Pellitero**, and J Ruiz-Hidalgo. An epipolar-constrained prior for efficient search in multi-view scenarios. In *EUSIPCO*, 2014.

[38] **E Pérez-Pellitero**, J Salvador, J Ruiz-Hidalgo, and B Rosenhahn. Bayesian region selection for adaptive dictionary-based super-resolution. In *BMVC*, 2013.

[39] J Salvador, **E Pérez-Pellitero**, and A Kochale. Fast single-image super-resolution with filter selection. In *ICIP*, 2013.