

Publications of Iván Sipirán by year

Year 2020

1. Stefan Lengauer, Alexander Komar, Stephan Karl, Elisabeth Trinkl, Iván Sipirán, Tobias Schreck, Reinhold Preiner. Semi-automated Annotation of Repetitive Ornaments on 3D Painted Pottery Surfaces. In *Proc. 18th Eurographics Workshop on Graphics and Cultural Heritage (GCH)*, pp. article 20201285, Nov 2020. Granada, Spain. Eurographics Association.

Year 2021

1. Stefan Lengauer, Iván Sipirán, Reinhold Preiner, Tobias Schreck, Benjamin Bustos. A Benchmark Dataset for Repetitive Pattern Recognition on Textured 3D Surfaces. *Computer Graphics Forum (CGF)* 40(5):1-8, 2021. John Wiley & Sons, Hoboken, NJ, USA. ISSN 0167-7055.
2. Iván Sipirán, Patrick Lazo, Cristian Lopez, Milagritos Jimenez, Nihar Bagewadi, Benjamin Bustos, Hieu Dao, Shankar Gangisetty, Martin Hanik, Ngoc-Phuong Ho-Thi, Mike Holenderski, Dmitri Jarnikov, Arniel Labrada, Stefan Lengauer, Roxane Licandro, Dinh-Huan Nguyen, Thang-Long Nguyen-Ho, Luis A. Perez Rey, Bang-Dang Pham, Minh-Khoi Pham, Reinhold Preiner, Tobias Schreck, Quoc-Huy Trinh, Loek Tonnaer, Christoph von Tycowicz, The-Anh Vu-Le. SHREC 2021: Retrieval of Cultural Heritage Objects. *Computers & Graphics (C&G)* 100:1-20, 2021. Elsevier Science, Amsterdam, The Netherlands. ISSN 0097-8493.

Year 2022

1. Jesus Perez-Martin, Benjamin Bustos, Silvio Jamil Ferzoli Guimaraes, Iván Sipirán, Jorge Pérez, Grethel Coello Said. A Comprehensive Review of the Video-to-Text Problem. *Artificial Intelligence Review (AIR)* 55:4165-4239, Jun 2022. Springer, Netherlands. ISSN 0269-2821.
2. Pablo Pizarro, Nancy Hitschfeld, Iván Sipirán, Jose Saavedra. Automatic Floor Plan Analysis and Recognition. *Automation in Construction* 140:article 104348, Jun 2022. Elsevier Science, Amsterdam, The Netherlands.
3. Iván Sipirán, Alexis Mendoza, Alexander Apaza, Cristian Lopez. Data-Driven Restoration of Digital Archaeological Pottery with Point Cloud Analysis. *International Journal of Computer Vision (IJCV)* 130(9):2149-2165, Sep 2022. Springer Science+Business Media, Singapore, Singapore. ISSN 0920-5691.
4. Chiara Romanengo, Andrea Raffo, Silvia Biasotti, Bianca Falcidieno, Vlassis Fotis, Ioannis Romanelis, Eleftheria Psathas, Konstantinos Moustakas, Iván Sipirán, Quang-Thuc Nguyen, Chi-Bien Chu, Khoi-Nguyen Nguyen-Ngoc, Dinh-Khoi Vo, Tuan-An To, Nham-Tan Nguyen, Nhat-Quynh Le-Pham, Hai-Dang Nguyen, Minh-Triet Tran, Yifan Qie, Nabil Anwer. SHREC 2022: Fitting and Recognition of Simple Geometric Primitives on Point Clouds. *Computers & Graphics (C&G)* 107:32-49, Oct 2022. Elsevier Science, Amsterdam, The Netherlands. ISSN 0097-8493.

5. Elia Moscoso Thompson, Andrea Ranieri, Silvia Biasotti, Miguel Chicchón, Iván Sipirán, Minh-Khoi Pham, Thang-Long Nguyen-Ho, Hai-Dang Nguyen, Minh-Triet Tran. SHREC 2022: Pothole and Crack Detection in the Road Pavement using Images and RGB-D Data. *Computers & Graphics (C&G)* 107:161-171, Oct 2022. Elsevier Science, Amsterdam, The Netherlands. ISSN 0097-8493.
6. Stefan Lengauer, Peter Houska, Reinhold Preiner, Elisabeth Trinkl, Stephan Karl, Iván Sipirán, Benjamin Bustos, Tobias Schreck. Interactive Annotation of Geometric Ornamentation on Painted Pottery Assisted by Deep Learning. *IT - Information Technology (IT)* 64(6):217-231, 2022. Walter de Gruyter, Berlin, Germany. ISSN 2196-7032.
7. Stefan Lengauer, Reinhold Preiner, Iván Sipirán, Stephan Karl, Elisabeth Trinkl, Benjamin Bustos, Tobias Schreck. Context-based Surface Pattern Completion of Ancient Pottery. In *Proc. 20th Eurographics Workshop on Graphics and Cultural Heritage (GCH)*, pp. 107-115, Sep 2022. Delft, The Netherlands. Eurographics Association. ISBN 978-3-03868-178-6.

Year 2023

1. Miguel Chicchón, Hector Bedon, Carlos R. Del-Blanco, Iván Sipirán. Semantic Segmentation of Fish and Underwater Environments Using Deep Convolutional Neural Networks and Learned Active Contours. *IEEE Access* 11:33652-33665, 2023. IEEE Computer Society Press, Los Alamitos, CA, USA. ISSN 2169-3536.
2. Iván Sipirán, Chiara Romanengo, Bianca Falcidieno, Silvia Biasotti, Gerasimos Arvanitis, Chen Chen, Vlassis Fotis, Jianfang He, Xiaoling Lv, Konstantinos Moustakas, Silong Peng, Ioannis Romanelis, Wenhao Sun, Christoforos Vlachos, Ziyu Wu, Qiong Xie. SHREC 2023: Detection of Symmetries on 3D Point Clouds Representing Simple Shapes. In *Proc. 16th Eurographics Workshop on 3D Object Retrieval (3DOR)*, 2023. Eurographics Association.
3. Cristian Llull, Nelson Baloian, Benjamin Bustos, Kornelius Kupczik, Iván Sipirán, Andrés Baloian. Evaluation of 3D Reconstruction for Cultural Heritage Applications. In *Proc. ICCV Workshop on e-Heritage (e-Heritage)*, 2023. IEEE Computer Society Press, Los Alamitos, CA, USA.
4. Ariana Villegas, Cristian Lopez, Iván Sipirán. MatchMakerNet: Enabling Fragment Matching for Cultural Heritage Analysis. In *Proc. ICCV Workshop on e-Heritage (e-Heritage)*, pp. 1632-1641, 2023. IEEE Computer Society Press, Los Alamitos, CA, USA.
5. Stefan Lengauer, Lin Shao, Magdalena Mayerhofer, Reinhold Preiner, Stephan Karl, Elisabeth Trinkl, Iván Sipirán, Benjamin Bustos, Tobias Schreck. Visual Exploration of Repetitive Patterns on Ancient Peruvian Pottery. *Journal of WSCG (WSCG)* 31(1-2):25-33, 2023. ISSN 1213-6972.
6. Pablo Pizarro, Nancy Hitschfeld, Iván Sipirán. Large-Scale Multi-Unit Floor Plan Dataset for Architectural Plan Analysis and Recognition. *Automation in Construction* 156:article 105132, Dec 2023. Elsevier Science, Amsterdam, The Netherlands.

Year 2024

1. Arniel Labrada, Benjamin Bustos, Iván Sipirán. A Convolutional Architecture for 3D Model Embedding using Image Views. *The Visual Computer (VC)* 40(3):1601-1615, Mar 2024. Springer, New York, NY, USA. ISSN 0178-2789.
2. Iván Sipirán. The Role of Computing in the Study of Latin American Cultural Heritage. *Communications of the ACM (CACM)* 67(8):58-62, 2024. ACM Press, New York, NY, USA. ISSN 0001-0782.
3. Sebastian Sepulveda, Benjamin Bustos, Iván Sipirán. Repetitive Patterns Recognition in Textures of Ancient Peruvian Pottery. *ACM Journal on Computing and Cultural Heritage (JOCH)* 17(4):article 55, Dec 2024. ACM Press, New York, NY, USA. ISSN 1556-4673.
4. Lucas Oyarzún, Iván Sipirán, Jose Saavedra. Self-distillation for Efficient Object-level Point Cloud Learning. In *Proc. 17th Eurographics Workshop on 3D Object Retrieval (3DOR)*, 2024. Eurographics Association.
5. Anali Alfaro, Iván Sipirán. Unsupervised Video Summarization: A Reconstruction Model with Proximal Gradient Methods. In *Proc. 2nd ECCV Workshop on Traditional Computer Vision in the Age of Deep Learning (TradiCV)*, pp. 84-99, Sep 2024. Springer Nature Switzerland AG, Cham, Switzerland. Lecture Notes in Computer Science.
6. Pablo Jaramillo, Iván Sipirán. Cultural Heritage 3D Reconstruction with Diffusion Networks. In *Proc. 7th ECCV Workshop on Vision for Art (VisART)*, pp. 104-117, Sep 2024. Springer Nature Switzerland AG, Cham, Switzerland. Lecture Notes in Computer Science.

Year 2025

1. Matías Vergara, Benjamin Bustos, Iván Sipirán, Tobias Schreck, Stefan Lengauer. Multi-label Learning on Low Label Density Sets with Few Examples. *Expert Systems with Applications (ESA)* 265:article 125942, Mar 2025. Elsevier Science, Amsterdam, The Netherlands. ISSN 0957-4174.
2. Miguel Chicchón, Francisco León Trujillo, Iván Sipirán, Ricardo Madrid. Land-Cover Semantic Segmentation for Very-High-Resolution Remote Sensing Imagery using Deep Transfer Learning and Active Contour Loss. *IEEE Access* 13:59007-59019, 2025. IEEE Computer Society Press, Los Alamitos, CA, USA. ISSN 2169-3536.
3. Bart Iver van Blokland, Isaac Aguirre, Iván Sipirán, Benjamin Bustos, Silvia Biasotti, Giorgio Palmieri. SHREC 2025: Partial Retrieval Benchmark. *Computers & Graphics (C&G)* 132:article 104397, 2025. Elsevier Science, Amsterdam, The Netherlands. ISSN 0097-8493.
4. Benjamin Bustos, Silvia Biasotti, Remco Veltkamp, Tobias Schreck, Iván Sipirán, ed. Special Section on 3D Object Retrieval 2024 Symposium (3DOR2024). *Computers & Graphics (C&G)* 129, 2025. Elsevier Science, Amsterdam, The Netherlands. ISSN 0097-8493.

5. Iván Sipirán. Symmetry Shape Analysis. In *Proc. 38th SIBGRAPI Conference on Graphics, Patterns and Images (SIBGRAPI)*, pp. article 11223488, 2025. IEEE-xplore.