Photogrammetry and Remote Sensing
School of Engineering and Design
Technical University of Munich

Complete list of the peer-reviewed publications

Olaf Wysocki

Photogrammetry and Remote Sensing, School of Engineering and Design, Technical University of Munich

olaf.wysocki@tum.de

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Original paper[1]:

- Duc, N., Lai, YL., Madlindl, P., Zhu, X., Schwab, B., **Wysocki, O**., Hoegner, L., Kolbe, TH. Mind the domain gap: Analyzing the domain gap between real-world and synthetic point clouds for automated driving development *Submitted to Journal of Photogrammetry, Remote Sensing and Geoinformation Science (PFG); manuscript available here: https://shorturl.at/56Hlw.*
  - Own contribution: Conceptualization, writing - original draft, writing - review & editing, student supervision.
- Bieringer, A., **Wysocki, O**., Tuttas, S., Hoegner, L., Holst, Ch. Analyzing the impact of semantic LoD3 building models on image-based vehicle localization, *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, X-4/W5-2024, 55–62, https://doi.org/10.5194/isprs-annals-X-4-W5-2024-55-2024, 2024.*
  - Own contribution: Conceptualization, writing - original draft, writing - review & editing, student supervision.
- Zhu, J., **Wysocki, O**., Holst, Ch., Kolbe, TH. Enriching thermal point clouds of buildings using semantic 3D building models, *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, X-4/W5-2024, 341–348, https://doi.org/10.5194/isprs-annals-X-4-W5-2024-341-2024, 2024.*
  - Own contribution: Methodology, implementation, writing - original draft, writing - review & editing.
- **Wysocki, O**., Hoegner, L. and Stilla, U. MLS2LoD3: Refining low LoDs building models with MLS point clouds to reconstruct semantic LoD3 building models, *Recent Advances in 3D Geoinformation Science, 367-380. Cham: Springer Nature Switzerland, 2023, https://doi.org/10.1007/978-3-031-43699-4_23*.
  - Own contribution: Methodology, implementation, validation, formal analysis, investigation, conceptualization, writing - original draft.
- Froech, T., **Wysocki, O**., Hoegner, L. and Stilla, U. Reconstructing facade details using MLS point clouds and Bag-of-Words approach, *Recent Advances in 3D Geoinformation Science, 337-355. Cham: Springer Nature Switzerland, 2023, https://doi.org/10.1007/978-3-031-43699-4_21*.
  - Own contribution: Conceptualization, writing - original draft, writing - review & editing, student supervision.
- Tan, Y., **Wysocki, O**., Hoegner, L. and Stilla, U. Classifying point clouds at the facade-level using geometric features and deep learning networks, *Recent Advances in 3D Geoinformation Science, 391-404. Cham: Springer Nature Switzerland, 2023, https://doi.org/10.1007/978-3-031-43699-4_25*.
  - Own contribution: Conceptualization, writing - original draft, writing - review & editing, student supervision.
- Schwarz, S., Pilz, T., **Wysocki, O**., Hoegner, L. and Stilla, U. Transferring facade labels between point clouds with semantic octrees while considering change detection, *Recent Advances in 3D Geoinformation Science, 287-298. Cham: Springer Nature Switzerland, 2023, https://doi.org/10.1007/978-3-031-43699-4_17*.

[1] accepted and published, unless indicated otherwise

  - Own contribution: Conceptualization, writing - original draft, writing - review & editing, student supervision.

- **Wysocki, O**., Xia, Y., Wysocki M., Grilli, E., Hoegner, L., Cremers D., and Stilla, U. Scan2LoD3: Reconstructing semantic 3D building models at LoD3 using ray casting and Bayesian networks, *IEEE/CVF Conference on Computer Vision and Pattern Recognition, 6547-6557, 2023, https://shorturl.at/qzSX0*.
  - Own contribution: Methodology, implementation, validation, formal analysis, investigation, conceptualization, writing - original draft.

- **Wysocki, O**., Grilli, E., Hoegner, L. and Stilla, U. Combining visibility analysis and deep learning for refinement of semantic 3D building models by conflict classification, *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, X-4/W2-2022, 289–296, https://doi.org/10.5194/isprs-annals-X-4-W2-2022-289-2022, 2022*.
  - Own contribution: Methodology, implementation, validation, formal analysis, investigation, conceptualization, writing - original draft.

- **Wysocki, O**., Hoegner, L. and Stilla, U. Refinement of semantic 3D building models by reconstructing underpasses from MLS point clouds, *International Journal of Applied Earth Observation and Geoinformation, 111, 2022, 102841, https://doi.org/10.1016/j.jag.2022.102841, 2022*.
  - Own contribution: Methodology, implementation, validation, formal analysis, investigation, conceptualization, writing - original draft.

- **Wysocki, O**., Xu, Y. and Stilla, U. Unlocking point cloud potential: Fusing MLS point clouds with semantic 3D building models while considering uncertainty, *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, VIII-4/W2-2021, 45–52, https://doi.org/10.5194/isprs-annals-VIII-4-W2-2021-45-2021, 2021*.
  - Own contribution: Methodology, implementation, validation, formal analysis, investigation, conceptualization, writing - original draft.

- **Wysocki, O**., Schwab, B., Hoegner, L., Kolbe, TH. and Stilla, U. Plastic surgery for 3D city models: A pipeline for automatic geometry refinement and semantic enrichment, *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, V-4-2021, 17–24, https://doi.org/10.5194/isprs-annals-V-4-2021-17-2021, 2021*.
  - Own contribution: Methodology, implementation, validation, formal analysis, investigation, conceptualization, writing - original draft.

Review/dataset paper[2]:

- **Wysocki, O**., Tan Y., Froech T., Xia, Y., Wysocki M., Hoegner, L., Cremers D., and Holst Ch. ZAHA: Introducing the Level of Facade Generalization and the large-scale point cloud facade semantic segmentation benchmark dataset, *Accepted for IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2025, https://arxiv.org/abs/2411.04865*.
  - Own contribution: Review, bechmark data preparation, formal analysis, investigation, conceptualization, writing - original draft.

- **Wysocki, O**., Schwab, B., Beil, Ch., Holst, Ch., Kolbe, TH. Reviewing open data semantic 3D city models to develop novel 3D reconstruction methods *International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences, XLVIII-4-2024, 493–500, https://doi.org/10.5194/isprs-archives-XLVIII-4-2024-493-2024*.
  - Own contribution: Review, formal analysis, investigation, conceptualization, writing - original draft.

[2] accepted and published, unless indicated otherwise

- **Wysocki, O**., Hoegner, L. and Stilla, U. TUM-FAÇADE: Reviewing and enriching point cloud benchmarks for façade segmentation, *International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences, XLVI-2/W1-2022, 529–536, https://doi.org/10.5194/isprs-archives-XLVI-2-W1-2022-529-2022, 2022*.
  - Own contribution: Review, bechmark data preparation, formal analysis, investigation, conceptualization, writing - original draft.