彭东亮

+31618189295 · pengdlzn@qq.com · 博士后

基本情况

本人出生于 1987 年 10 月 26 日，湖南浏阳。本人热爱科研教学，乐观向上，工作负责，易于相处。个人网站为www.researchgate.net/profile/Dongliang_Peng。不当之处请多多指教，非常感谢！[1]

工作经历

博士后，地理信息系统技术，代尔夫特理工大学，荷兰 2018/05–2020/12

课题: 任意比例尺网络地图 (Vario-scale web maps)
导师: Peter van Oosterom 和 Martijn Meijers

教育背景

博士，计算机科学，维尔茨堡大学，德国 2012/10–2017/12

论文: 基于最优化的地图连续综合方法
(An Optimization-Based Approach for Continuous Map Generalization)[2]
成绩: magna cum laude (优)
导师: Alexander Wolff 和 Jan-Henrik Haunert

硕士，地图制图学与地理信息工程，中南大学，中国 2009/09–2012/05

论文: 面向地图连续综合的线状要素 Morphing 变换方法研究[3]
成绩: 中南大学优秀硕士学位论文
导师: 邓敏

学士，测绘工程，中南大学，中国 2005/09–2009/06

论文: 基于 AutoCAD 的矢量数据更新方法
成绩: 优
导师: 邓敏

研究兴趣

- 地理信息系统算法，基于最优化的地图制图，地图多尺度表达，地图连续综合，带有平滑渐变的网络地图

获奖和荣誉

- 地理信息科技进步一等奖（序 11），“多源多尺度空间数据不一致性探测处理的理论与方法”。 2013/09
- 中南大学优秀研究生。 2011/12
- 比亚迪奖学金优秀学生奖。 2011/12
- **彭东亮**，邓敏，赵彬彬，“基于 Morphing 的河网多尺度变换方法研究”，2011 年地理信息产业 “苍穹杯” 青年优秀论文三等奖。 2011/10
- 刘启亮，邓敏，**彭东亮**，徐震，“基于场论的空间聚类有效性评价方法研究”，“中测新图杯” 青年优秀论文一等奖。 2009/10

[1] 本简历更新于 2021 年 1 月 2 日。
[2] 博士论文开放获取网址为 https://doi.org/10.25972/WUP-978-3-95826-105-1。
[3] 硕士论文网址为 http://cdmd.cnki.com.cn/Article/CDMD-10533-1012478478.htm。

论文

代表论文

[1] **Dongliang Peng**, Alexander Wolff, and Jan-Henrik Haunert. "Finding optimal sequences for area aggregation—A* vs. integer linear programming." In: *ACM Transactions on Spatial Algorithms and Systems* 7.1 (2020), pp. 1–40. DOI: 10.1145/3409290.

[2] **Dongliang Peng**, Martijn Meijers, and Peter van Oosterom. "Paralleling generalization operations to support smooth zooming: case study of merging area objects." In: *International Journal of Geographical Information Science* (2020). Improving for resubmitting, pp. 1–26. URL: https://pengdlzn.github.io/parallel-merge-ijgis/parallel_merge_ijgis.pdf.

[3] **Dongliang Peng**, Alexander Wolff, and Jan-Henrik Haunert. "Continuous generalization of administrative boundaries based on compatible triangulations." In: *Proc. 19th AGILE Conference on Geographic Information Science, Geospatial Data in a Changing World*. Ed. by Tapani Sarjakoski, Yasmina Maribel Santos, and Tiina L. Sarjakoski. Lecture Notes in Geoinformation and Cartography. 2016, pp. 399–415. DOI: 10/c5kh.

[4] **Dongliang Peng** and Guillaume Touya. "Continuously generalizing buildings to built-up areas by aggregating and growing." In: *Proc. 3rd ACM SIGSPATIAL Workshop on Smart Cities and Urban Analytics (UrbanGIS)*. 2017, pp. 1–8. DOI: 10.1145/3152178.3152188.

[5] Min Deng and **Dongliang Peng**. "Morphing linear features based on their entire structures." In: *Transactions in GIS* 19.5 (2015), pp. 653–677. DOI: 10.1111/tgis.12111.

所有论文

[1] **Dongliang Peng**, Martijn Meijers, and Peter van Oosterom. "Multi-layer vario-scale web map comparer with dynamic transitions and visual analytical tool." In: *Proc. 23rd ICA Workshop on Generalisation and Multiple Representation (ICAGM)*. 2020, pp. 1–8.

[2] **Dongliang Peng**, Martijn Meijers, and Peter van Oosterom. "Paralleling generalization operations to support smooth zooming: case study of merging area objects." In: *International Journal of Geographical Information Science* (2020). Improving for resubmitting, pp. 1–26. URL: https://pengdlzn.github.io/parallel-merge-ijgis/parallel_merge_ijgis.pdf.

[3] **Dongliang Peng**, Alexander Wolff, and Jan-Henrik Haunert. "Finding optimal sequences for area aggregation—A* vs. integer linear programming." In: *ACM Transactions on Spatial Algorithms and Systems* 7.1 (2020), pp. 1–40. DOI: 10.1145/3409290.

[4] Martijn Meijers, Peter van Oosterom, Radan Šuba, and **Dongliang Peng**. "Towards a scale dependent framework for creating vario-scale maps." In: *ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences* XLII-4 (2018), pp. 425–432. DOI: 10.5194/isprs-archives-XLII-4-425-2018.

[5] **Dongliang Peng** and Guillaume Touya. "Continuously generalizing buildings to built-up areas by aggregating and growing." In: *Proc. 3rd ACM SIGSPATIAL Workshop on Smart Cities and Urban Analytics (UrbanGIS)*. 2017, pp. 1–8. DOI: 10.1145/3152178.3152188.

[6] **Dongliang Peng**, Alexander Wolff, and Jan-Henrik Haunert. "Using the A* algorithm to find optimal sequences for area aggregation." In: *Proc. 28th International Cartographic Conference (ICC), Advances in Cartography and GIScience*. Ed. by Michael P. Peterson. Lecture Notes in Geoinformation and Cartography. 2017, pp. 389–404. DOI: 10.1007/978-3-319-57336-6_27.

[7] **Dongliang Peng**, Alexander Wolff, and Jan-Henrik Haunert. "Continuous generalization of administrative boundaries based on compatible triangulations." In: *Proc. 19th AGILE Conference on Geographic Information Science, Geospatial Data in a Changing World*. Ed. by Tapani Sarjakoski, Yasmina Maribel Santos, and Tiina L. Sarjakoski. Lecture Notes in Geoinformation and Cartography. 2016, pp. 399–415. DOI: 10/c5kh.

[8] 赵彬彬, **彭东亮**, 张山山, 刘珊珊, 熊旭平, and 戴全发. "顾及空间关系约束的不同比例尺面目标不一致性同化处理." In: 武汉大学学报 · 信息科学版 41.7 (2016), pp. 911–917. DOI: 10.13203/j.whugis20140011.

[9] 赵彬彬, 邓敏, **彭东亮**, and 朱建军. "基于整体极优对应的不同比例尺线目标一致化处理方法." In: 武汉大学学报 · 信息科学版 41.8 (2016), pp. 1046–1054. DOI: 10.13203/j.whugis20140430.

[10] Min Deng and **Dongliang Peng**. "Morphing linear features based on their entire structures." In: *Transactions in GIS* 19.5 (2015), pp. 653–677. DOI: 10.1111/tgis.12111.

[11] 王晓密, 赵彬彬, 邓敏, and **彭东亮**. "不同比例尺地图水系目标变化探测方法研究." In: 地理与地理信息科学 31.6 (2015), pp. 25–29. DOI: 10.3969/j.issn.1672-0504.2015.06.005.

[12] **Dongliang Peng** and Alexander Wolff. "Watch your data structures!" In: *Proc. 22nd Annual Conference of the GIS Research UK (GISRUK)*. Ed. by Jane Drummond. 2014, pp. 371–381. URL: https://www.gla.ac.uk/media/media_401742_en.pdf.

[13] **彭东亮**, 邓敏, and 刘慧敏. "更充分利用独立弯曲结构的线状要素 morphing 变换方法." In: 测绘学报 43.6 (2014), pp. 637–644. DOI: 10.13485/j.cnki.11-2089.2014.0100.

[14] **Dongliang Peng** and Min Deng. "A method of measuring shape similarity between multi-scale objects." In: *Proc. 12th International Conference on GeoComputation*. 2013, pp. 1–6. URL: http://www.geocomputation.org/2013/papers/127.pdf.

[15] **Dongliang Peng**, Jan-Henrik Haunert, Alexander Wolff, and Christophe Hurter. "Morphing polylines based on least squares adjustment." In: *Proc. 16th ICA Workshop on Generalisation and Multiple Representation (ICAGM)*. 2013, pp. 1–10. URL: https://kartographie.geo.tu-dresden.de/downloads/ica-gen/workshop2013/genemappro2013_submission_6.pdf.

[16] **彭东亮**, 刘慧敏, 邓敏, and 刘斯旸. "线状要素 morphing 变换长度变化规律的探讨." In: 地理与地理信息科学 29.1 (2013), pp. 22–27. URL: http://www.dlydlxxkx.cn/html/qkdd/2013/10001.html.

[17] **Dongliang Peng**, Min Deng, and Binbin Zhao. "Multi-scale transformation of river networks based on morphing technology." In: *Journal of Remote Sensing* 16.5 (2012), pp. 953–960. URL: http://www.jors.cn/jrs/ch/reader/view_abstract.aspx?file_no=r11272&flag=1.

[18] **彭东亮**, 邓敏, and 徐枫. "顾及 BLG 树结构特征的线状要素 morphing 变换方法." In: 武汉大学学报 · 信息科学版 37.9 (2012), pp. 1120–1125. URL: http://ch.whu.edu.cn/article/id/330.

[19] **彭东亮**, 邓敏, and 赵彬彬. "河网多尺度 morphing 的变换方法研究." In: 遥感学报 16.5 (2012), pp. 961–968. URL: http://www.jors.cn/jrs/ch/reader/view_abstract.aspx?file_no=r11272&flag=1.

[20] 邓敏, **彭东亮**, 徐震, and 刘慧敏. "一种基于弯曲结构的线状要素 morphing 方法." In: 中南大学学报（自然科学版）43.7 (2012), pp. 2674–2682. URL: http://www.zndxzk.com.cn/paper/paper_30098.html.

[21] **Dongliang Peng**, Min Deng, Zhen Xu, and Huimin Liu. "A new morphing method of linear features based on bend structures." In: *Proc. ISPRS Workshop on Dynamic and Multi-Dimensional GIS*. 2011, pp. 1–6.

[22] 刘启亮, 邓敏, **彭东亮**, and 王佳璆. "基于力学思想的空间聚类有效性评价." In: 武汉大学学报 · 信息科学版 36.8 (2011), pp. 982–986. URL: http://ch.whu.edu.cn/article/id/623.

[23] 刘启亮, 邓敏, 石岩, and **彭东亮**. "一种基于多约束的空间聚类方法." In: 测绘学报 40.4 (2011), pp. 509–516. URL: http://xb.sinomaps.com/CN/abstract/abstract5266.shtml.

[24] 邓敏, **彭东亮**, 刘启亮, and 石岩. "一种基于场论的层次空间聚类算法." In: 武汉大学学报 · 信息科学版 36.7 (2011), pp. 847–852. URL: http://ch.whu.edu.cn/CN/Y2011/V36/I8/982.

[25] 赵玲, 邓敏, 王佳璆, and **彭东亮**. "基于复杂网络理论的城市路网结构特性分析." In: 地理与地理信息科学 26.5 (2010), pp. 11–15. URL: http://www.dlydlxxkx.cn/html/qkdd/2010/6521.html.

学术交流

会议

- 23rd International Cartographic Association Workshop on Generalisation and Multiple Representation (ICAGM'20); **oral presentation**. Delft, The Netherlands. 11/05–11/06, 2020
- ISPRS TC IV Mid-term Symposium "3D Spatial Information Science—The Engine of Change" (Volume XLII-4). Delft, The Netherlands. 10/01–10/05, 2018
- 25th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACMGIS'17). Redondo Beach, California, USA. 11/07–11/10, 2017
- 3rd International Workshop on Smart Cities and Urban Analytics (UrbanGIS'17); **oral presentation**. Redondo Beach, California, USA. 11/07, 2017
- 28th International Cartographic Conference (ICC'17); **oral presentation**. Washington DC, USA. 07/02–07/07, 2017
- 20th International Cartographic Association Workshop on Generalisation and Multiple Representation (ICAGM'17). Washington DC, USA. 07/01, 2017
- 19th Association of Geographic Information Laboratories in Europe International Conference on Geographic Information Science (AGILE'16); **oral presentation**. Helsinki, Finland. 06/14–06/17, 2016
- 19th International Cartographic Association Workshop on Generalisation and Multiple Representation (ICAGM'16). Helsinki, Finland. 06/14, 2016
- 22nd Annual Conference of Geographical Information Systems Research UK (GISRUK'14); **oral presentation**. Glasgow, UK. 04/16–04/18, 2014
- 26th International Cartographic Conference (ICC'13). Dresden, Germany. 08/25–08/30, 2013
- 16th International Cartographic Association Workshop on Generalisation and Multiple Representation (ICAGM'13); **oral presentation**. Dresden, Germany. 08/23–08/24, 2013
- The European Workshop on Computational Geometry (EuroCG'13). Braunschweig, Germany. 03/17–03/20, 2013
- 中国地理信息产业大会。中国北京。 10/25–10/26, 2011

论坛

- NCG symposium. Delft, The Netherlands. 11/05, 2020
- Geomatics Day. Delft, The Netherlands. 06/26, 2020
- NCG symposium; **oral presentation**. Enschede, The Netherlands. 11/21, 2019
- Geomatics Day. Delft, The Netherlands. 06/28, 2019
- Seminar Geo-Information Systems in Action. Delft, The Netherlands. 10/19, 2018
- Geomatics Day. Delft, The Netherlands. 06/22, 2018
- Map generalization and multiple-/vario-scale representations, a seminar to close the STW project Vario-scale Geo-information. Delft, The Netherlands. 06/12, 2017
- 3rd PhD Colloquium of the DGK Section on Geoinformatics and the DGPF Working Group on Geoinformatics. Würzburg, Germany. 03/07, 2017
- 2nd PhD Colloquium of the DGK Section on Geoinformatics and the DGPF Working Group on Geoinformatics; **oral presentation**. Bonn, Germany. 02/23, 2016
- 中南大学第二届测绘研究生学术论坛；**口头报告**（三等奖）。中国长沙。 12/22–12/23, 2011

- 中南大学第一届测绘研究生学术论坛；**口头报告**（三等奖）。中国长沙。 12/12–12/13, 2009

短期培训

- Geometric Algorithms in the Field; **Poster**. Leiden, The Netherlands. 06/23–26/27, 2014
- EuroGIGA Fall School. Würzburg, Germany. 10/08–10/12, 2012

访问

- Dr. Guillaume Touya, French National Mapping Agency (IGN), Saint-Mandé, France. 09/12–09/23, 2016
- Dr. Jan-Henrik Haunert, University of Osnabrück, Osnabrück, Germany. 03/09–03/13, 2015
- Dr. Jan-Henrik Haunert, University of Osnabrück, Osnabrück, Germany. 07/28–08/01, 2014

审稿

期刊

- 测绘学报
- Computers and Geosciences (2 次)
- International Journal of Digital Earth
- International Journal of Geographical Information Science
- Journal of Spatial Science
- 武汉大学学报 · 信息科学版 (3 次)

会议

- 25th International Symposium on Algorithms and Computation (ISAAC'16)
- 23rd ICA Workshop on Map Generalisation and Multiple Representation (ICAGM'20，3 篇)

学术活动组织

- 23rd ICA Workshop on Map Generalisation and Multiple Representation, member of Program Committee. Delft, The Netherlands. 11/05–11/06, 2020
- NCG Workshop on Creating Interactive Online maps, **organizer**. Delft, The Netherlands.[4] 11/05, 2020

教学

正式课程

- 面向地球空间信息科学的 Python 编程 (Python Programming for Geomatics)

习题课

- 地理信息系统算法 (Algorithms for GIS)
- 计算几何 (Computational Geometry)

其它

- 空间优化 (Spatial Optimization，正在开发)
- 荷兰大学教师资格证 (University Teaching Qualification，已完成 90 %)

指导帮助毕业论文

硕士

- 作为第二导师指导 Charlie Groenewegen, "Locations for low cost large-scale green hydrogen production systems in Europe and North Africa". 2020/09–

[4] The link to the workshop is https://pengdlzn.github.io/events/interactive-online-maps/.

- 作为第二导师指导 Konrad Jarocki, “Parallel step assignment for continuous generalization”。 2019/09–2020/07
- 帮助 Felipe Reinel, “Multidimensional labor resource visualization for integrated turnarounds”。 2019/01–2019/06
- 帮助 Yannick Brangers, “Project A-Locate：Using location-allocation modelling to optimise human resources in retail environments”。 2018/09–2019/06

本科

- 帮助王航，“面状要素地图连续综合方法研究”。 2014/03–2014/06
- 帮助谢坤，“以拓扑形变最小为准则的面状要素地图鱼眼视图方法”。 2013/03–2013/06
- 帮助张琦，“基于 ArcEngine 的济南水雨情信息系统研究”。 2012/03–2012/06
- 帮助胡敏，“地图综合中基于结构的线状要素 Morphing 变换方法研究”。 2012/03–2012/06
- 帮助刘海燕，“空间聚类有效性评价方法对比研究”。 2010/03–2010/06

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- 邓敏，**彭东亮**，刘启亮，刘慧敏，彭思岭，徐震，黄雪萍，张朋东，“时空插值分析软件 (EasyInterpolator)”，证书号：软著登字第 0244971 号，登记号：2010SR056698，完成日期: 2010 年 10 月 10 日。
- 邓敏，刘启亮，**彭东亮**，刘慧敏，石岩，李光强，王佳璆，梅小明，赵玲，“空间异常探测软件 (EasyDetector)”，证书号：软著登字第 0221873 号，登记号：2010SR033600，完成日期: 2010 年 06 月 04 日。
- 邓敏，刘启亮，**彭东亮**，李光强，刘慧敏，“空间聚类分析软件 (EasyCluster)”，证书号：软著登字第 0209447 号，登记号：2010SR021174，完成日期: 2010 年 03 月 10 日。

编程语言

- 基于 Python，PostgreSQL，JavaScript，HTML，WebGL 开发了 “任意比例尺网络地图 (vario-scale web maps)”。[5]
- 基于 C# 及函数库 ArcGIS Objects，CPLEX，Eigen，Clipper，Excel 开发了 “连续综合软件 (ContinuousGeneralizer)”。[6]
- 基于 C# 及函数库 ArcGIS Objects 开发了 “时空插值分析软件 (EasyInterpolator)”。
- 基于 Visual Basic .NET 及函数库 MapObjects 开发了 “空间异常探测软件 (EasyDetector)”。
- 基于 Visual Basic .NET 及函数库 MapObjects 开发了 “空间聚类分析软件 (EasyCluster)”。
- 熟悉：Java, C.
- 有少许经验：C++, XML, Matlab, R.

常用专业工具

- Apache, ArcMap, ArcGIS Pro, FME, Git, Inkscape, Ipe, LaTeX, ParaView, PostgreSQL, QGIS

语言

- 中文，母语
- 英语，B2（依据欧洲共同语言参考标准），测试于 2018 年 9 月 26 日
- 德语，A2（依据欧洲共同语言参考标准），测试于 2014 年 7 月 11 日

爱好

- 运动：足球，壁球，滑雪，滑冰，游泳，乒乓球，羽毛球，桌球，电子竞技等
- 桌游：象棋，围棋，Magic 等

[5] 一个带有并行平滑合并网络地图的示例：https://pengdlzn.github.io/webmaps/2020/10/merge/top10nl-0.01.html.
[6] 连续综合软件 (ContinuousGeneralizer) 可以在 GitHub 上开放获取：https://github.com/IGNF/ContinuousGeneralisation.

参考人

- Prof. Dr. **Peter van Oosterom**. Section GIS technology, Faculty of Architecture and the Built Environment, Delft University of Technology, The Netherlands. Email: P.J.M.vanOosterom@tudelft.nl, Homepage: www.gdmc.nl/oosterom/.
- Prof. Dr. **Alexander Wolff**. Chair of Algorithms, Complexity, and Knowledge-Based Systems, Faculty of Mathematics and Computer Science, University of Würzburg, Germany. Email: alexander.wolff@uni-wuerzburg.de, Homepage: www.informatik.uni-wuerzburg.de/en/algo/staff/wolff-alexander/.
- Prof. Dr. **Jan-Henrik Haunert**. Institute of Geodesy and Geoinformation, Faculty of Agriculture, University of Bonn, Germany. Email: haunert@igg.uni-bonn.de, Homepage: www.geoinfo.uni-bonn.de/haunert.