

CURRICULUM VITAE



PERSONAL INFORMATION

Name Kacper, Pluta
Nationality Polish
E-Mail kacper.pluta@gmail.com
Web Page copyme.github.io
Mother Tongue Polish
Other Languages English – professional (scientific)
French – sufficient (professional context)

PROFESSION

- ▷ Period 2018–present
 - Employer **Technion – Israel Institute of Technology**
 - Position Postdoctoral fellow
 - Main Responsibilities Research
 - Contract Type Full time, Determinate duration

- ▷ Period 2017–2018
 - Employer **University Paris-Est Marne-la-Vallée**
 - Position Attaché Temporaire d’Enseignement et de Recherche (equivalent to assistant professor)
 - Main Responsibilities Research and teaching
 - Contract Type Full time, Determinate duration

- ▷ Period 2012–2013
 - Employer **Technical University of Łódź**
 - Position Oracle (PL/SQL) and Delphi developer
 - Main Responsibilities Development and maintenance of internal systems
 - Contract Type Full time, Determinate duration

EDUCATION

- ▷ Period 2014–2017
 - Acquired Qualifications **Ph.D.** in Computer Science
 - Institution University Paris-Est
 - Thesis Subject Rigid Motions on Discrete Spaces
 - Supervisors Yukiko KENMOCHI and Pascal ROMON

- ▷ Period 2013–2014
- Acquired Qualifications **Master** in Computer Science
- Institution University Paris-Est Marne-la-Vallée
- Program Labex Bézout – International track in Computer Science and Maths
- Track Signal, Image, Synthèse
- Comments Obtained with honors (avec mention très bien)

- ▷ Period 2009–2013
- Acquired Qualifications **Bachelor (Polish engineer’s degree)** in Computer Science
- Institution University of Computer Sciences and Skills in Łódź
- Track Programming and Databases
- Comments Several scholarships of the Polish ministry of higher education for the best students

PUBLICATIONS

- ▷ Journal Domej G., Bouedeau C., Lenti L., Salvatore M., Pluta K.: Shape and Dimension Estimations of Landslide Rupture Zones via Correlations of Characteristic Parameters. *Geosciences*, 2020, vol. 10(5), pp. 198–221, doi:10.4408/10.3390/geosciences10050198
- ▷ Journal Domej G., Bouedeau C., Lenti L., Pluta K.: Mean Landslide Geometries Inferred From a Global Database of Earthquake- and Non-earthquake-Triggered Landslides. *Italian Journal of Engineering Geology and Environment*, 2017, vol. 2, pp. 87–108, doi:10.4408/IJEGE.2017-02.O-05
- ▷ Journal Pluta K., T. Roussillon, D. Cœurjolly, P. Romon, Y. Kenmochi, V. Ostromoukhov: Characterization of bijective digitized rotations on the hexagonal grid. *Journal of Mathematical Imaging and Vision*, 2018, vol. 60, pp. 707–716, doi:10.1007/s10851-018-0785-1
- ▷ Journal Pluta K., Romon P., Kenmochi Y., Passat N.: Bijective Digitized Rigid Motions on Subsets of the Plane. *Journal of Mathematical Imaging and Vision*, 2017, vol. 59(1), pp. 84–105, doi:10.1007/s10851-017-0706-8
- ▷ Journal Pluta K., Janaszewski M., Postolski M.: New Algorithm for Modeling of Bronchial Trees. *Image Processing & Communications*, 2012, vol. 17(4), pp. 179-190, doi:10.2478/v10248-012-0045-8
- ▷ Conference Proceedings Pluta K., Edelstein M., Vaxman A., Ben-Chen M. : PH-CPF: Planar Hexagonal Meshing using Coordinate Power Fields. Accepted à SIGGRAPH 2021

- ▷ Conference Proceedings Passat N., Kenmochi Y., Ngo P., Pluta K.: Rigid Motions in the Cubic grid: a Discussion on Topological Issues. *Lecture Notes in Computer Science*. DGCI, 2019, vol. 11414, pp. 127–140, doi:10.1007/978-3-030-14085-4_11
- ▷ Conference Proceedings Pluta K., Romon P., Kenmochi Y., Passat N.: Honeycomb Geometry: Rigid Motions on the Hexagonal Grid. *Lecture Notes in Computer Science*. DGCI, 2017, vol. 10502, pp. 33–45, doi:10.1007/978-3-319-66272-5_4
- ▷ Conference Proceedings Pluta K., Moroz G., Kenmochi Y., Romon P.: Quadric Arrangement in Classifying Rigid Motions of a 3D Digital Image. *Lecture Notes in Computer Science*. CASC, 2016, vol. 9890, pp. 426–443, doi:10.1007/978-3-319-45641-6_27
- ▷ Conference Proceedings Pluta K., Romon P., Kenmochi Y., Passat N.: Bijectivity Certification of 3D Digitized Rotations. *Lecture Notes in Computer Science*. CTIC, 2016, vol. 9667, pp. 30–41, doi:10.1007/978-3-319-39441-1_4
- ▷ Conference Proceedings Pluta K., Romon P., Kenmochi Y., Passat N.: Bijective Rigid Motions of the 2D Cartesian Grid. *Lecture Notes in Computer Science*. DGCI, 2016, vol. 9647, pp. 359–371, doi:10.1007/978-3-319-32360-2_28
- ▷ Conference Proceedings Pluta K., Postolski M., Janaszewski M.: Bronchial Tree Modeling Algorithms. *Science Bulletin of the College of Computer Science in Łódź, SMiSKT*, 2012, vol. 11(1), pp. 152–170
- ▷ Technical Report Pluta K., Kenmochi Y., Passat N., Talbot H., Romon P.: Topological Alterations of 3D Digital Images under Rigid Transformations. HAL, 2016, hal:hal-01333586
- ▷ Abstract Pluta K., Domej G.: From Point Clouds to Surfaces : Overview on a Case Study. European Geosciences Union, 2021, doi : 10.5194/egusphere-egu21-152
- ▷ Abstract with Poster Domej G., Bourdeau C., Lenti L., Pluta K.: A Global Database of Seismically and Non-seismically Triggered Landslides for 2D/3D Numerical Modeling, Poster session presented at European Geosciences Union, 2017
- ▷ Bachelor Thesis Pluta K.: Algorytmy Modelowania Geometrii Drzew Oskrzelowych w Przestrzeni 3D. University of Computer Science in Łódź, 2013
- ▷ Technical Magazine Pluta K.: Static Content Management Systems. *Polish Edition of Linux+ Magazine*, 2010
- ▷ Technical Magazine Pluta K.: Preview of eyeOS. *Polish Edition of Linux+ Magazine*, 2010

▷ Technical Magazine

Pluta K.: Survey of antivirus software for Linux Desktops. *Polish Edition of Linux+ Magazine*, 2010

TALKS

▷ Seminary

La grille hexagonale : moins populaire mais néanmoins utile, Université Savoie-Mont-Blanc, Chambéry, 2021

▷ Seminary

Tangent Estimation of 3D Digital Curves, Technion, Haifa, 2018

▷ Seminary

Rigid Motions on 3D Digital Space, Technion, Haifa, 2017

▷ International Conference

Honeycomb Geometry: Rigid Motions on the Hexagonal Grid, DGCI, Vienna, 2017

▷ International Conference

Quadrics Arrangement in Classifying Rigid Motions of a 3D Digital Image, CASC, Bucharest, 2016

▷ International Conference

Bijectivity Certification of 3D Digitized Rotations, CTIC, Marseilles, 2016

▷ International Conference

Bijective Rigid Motions of the 2D Cartesian Grid, DGCI, Nantes, 2016

▷ Seminary

Quadrics Arrangement in Classifying Rigid Motions of a 3D Digital Image, INRIA, Nancy, 2016

▷ National Working Group Day

Bijectivity Certification of 3D Digitized Rotations, Journée du GéoDis, Marseilles, 2016

▷ National Working Group Day (Poster)

Bijective Rigid Motions of the 2D Cartesian Grid, Journée du GDR-IM, Villetaneuse, 2016

▷ National Working Group Day

Bijective Rigid Motions of the 2D Cartesian Grid, Journée du GéoDis, Lyon, 2015

▷ National Project Workshop

Local Characterization of Rigid Motions in 2D Cartesian Grid, KIDICO, Obernai, 2015

▷ National Working Group Day

Topological Alterations of 3D Digital Images under Rigid Transformations, Journée du GéoDis, Reims, 2014

▷ National Conference (Poster)

New Algorithm for Modeling of Bronchial Trees, SŁOK, Słok, 2012

▷ National Conference

Bronchial Tree Modeling Algorithms, SMiSKT, Łódź, 2012

▷ Doctoral School Students' Workshop

Bijectivity Certification of 3D Digitized Rotations, Noisy-le-Grand, 2016

▷ Doctoral school Students' Workshop

Honeycomb Geometry: Rigid Motions on the Hexagonal Grid, Noisy-le-Grand, 2017

TEACHING

▷ Labs (Bachelor 3)

Databases, University Paris-Est Marne-la-Vallée, 12h, 2017/18, **head:** Claire David

▷ Labs (Bachelor 1)

Algorithmic and Programming 1, University Paris-Est Marne-la-Vallée, 36h, 2017/18, **head:** Antoine Meyer

▷ Labs (Master 2)

Digital Geometry, University Paris-Est Marne-la-Vallée, 5h, 2017/18, **with:** Yukiko Kenmochi

▷ Labs (Master 1)

Linux API, University Paris-Est Marne-la-Vallée, 24h, 2017/18, **head:** Sylvain Cherrier

▷ Labs (Master 1)

Object-Oriented Programming 1, University Paris-Est Marne-la-Vallée, 48h, 2017/18, **head:** Sylvain Cherrier

▷ Labs (Master 1)

Workshop on C Programming, University Paris-Est Marne-la-Vallée, 4h, 2017/18

▷ Lectures & Labs (Master 1)

Introduction to Computational Geometry, ESIEE Paris, 16h, 2016/17, **head:** Nabil Mustafa

▷ Labs (Master 2)

Digital Geometry, University Paris-Est Marne-la-Vallée, 5h, 2016/17, **with:** Yukiko Kenmochi

▷ Lectures & Labs (Master 1)

Object-Oriented Programming 1, University Paris-Est Marne-la-Vallée, 48h, 2016/17, **head:** Sylvain Cherrier

▷ Project (Master 1)

Image Analysis and Synthesis, ESIEE Paris, Leading a group of 3 students for 8 weeks, 2015/16, **head:** Jean Cousty

▷ Labs (Master 1)

Introduction to Computational Geometry, ESIEE Paris, 8h, 2015/16, **head:** Nabil Mustafa

▷ Lectures & Labs (Master 1)

Graphical Interface Programming, ESIEE Paris, 16h, 2015/16, **head:** Nabil Mustafa

▷ Labs (Bachelor 3)

Algorithms and Programming, University Paris-Est Marne-la-Vallée, 24h, 2014/15 Fall, **head:** Éric Laporte

AWARDS

▷ 2016

Software Award of Symposium on Geometric Processing for DGtal. Laureates (collective price, by alphabetical order) : P.H. Cerdan, D. Cœurjolly, R. Denis, P. Gueth, B. Kerautret, J.-O. Lachaud, J. Levallois, K. Pluta, I. Sivignon, T. Roussillon

ABILITIES

PROGRAMMING LANGUAGES

C/C++, Maple, Wolfram Language, Delphi, Oracle (PL/SQL), Microsoft SQL (T-SQL and SQLJet), Python, Shell scripts

CASE AND OTHER TOOLS

git, svn, Valgrind, GNU Debugger

HOBBIES

reading, biking, music, cooking, painting, horse riding, Dutch Golden Era, Soviet Horology, Medieval Spain