# Octave Curmi

### Curriculum vitae March 2020

#### Info

Contact octave.curmi@univ-amu.fr.

Born October 21, 1992.

#### Education

Oct 2015 – **PhD student in mathematics**, "Topology of the Milnor fibers of nonisolated surface singularities", with Patrick Popescu-Pampu, Université Lille, France.

Jury composed of:

- Javier Fernández de Bobadilla, Referee.
- Hussein Mourtada.
- Anne Pichon, Referee.
- Martin Saralegui Aranguren.
- Bernard Teissier.
- 2014 2015 Master in pure mathematics, Université de Lille.
  - 2014 "Agrégé de mathématiques" (Title obtained by competition, entitling to a teacher position in the national education system).

#### Experience

#### **Preprints**

- Oct 2019 **Topology of smoothings of non-isolated singularities of complex surfaces**, 43 pages, Available at https://arxiv.org/pdf/1910.04145.pdf, submitted to Math. Annalen, in revision.
- Nov 2019 **Boundary of the Milnor fiber of a Newton non degenerate surface singularity**, *33 pages*, Available at https://arxiv.org/pdf/1911.13258.pdf.

#### **Positions**

Sep 2018 – **ATER (temporary research and teaching position)**, *Université Aix-Marseille*, Aug 2020 *France*.

#### Talks given

Nov 2019 **"Topology of smoothings of non-isolated singularities of complex surfaces"**, Workshop on Topological and Analytical methods in singularity theory, Guanajuato, Mexico.

- July 2019 "Singularities in Topology", Wide audience talk for students an teachers, Lebanese International University, Beyrouth, Lebanon.
- July 2019 **"Topology of smoothings of non-isolated singularities of complex surfaces"**, Singularity theory session of the conference "Joint meeting France-Brazil in Mathematics", IMPA, Rio, Brazil.
- July 2019 Short course around Mumford's "The topology of normal singularities of an algebraic surface and a criterion for simplicity" (1961), Galatasaray University, Istanbul, Turkey.
- June 2019 **"Topology of smoothings of non-isolated singularities of complex surfaces"**, Weekly seminar of topology, geometry and algebra, Université de Nantes, France.
- May 2019 Short course "Around Milnor's fibration theorem: an interplay of algebra and topology", 1st Najah short courses in mathematics, An-Najah University, Nablus, Palestine.
- May 2019 "Topology of smoothings of non-isolated singularities of complex surfaces", Weekly seminar of singularities, Université Paris Diderot, France.
- Apr 2019 **"Topology of smoothings of non-isolated singularities of complex surfaces"**, *Weekly seminar of algebraic geometry*, Université de Lille, France.
- Apr 2019 "Topology of smoothings of non-isolated singularities of complex surfaces", Weekly seminar Singacom, Universidad de Valladolid, Spain.
- Mar 2019 **"Topology of non-isolated singularities of complex surfaces"**, Weekly seminar of dynamical systems and geometry, Université d'Angers, France.
- Feb 2019 **Some bases of toric geometry, I & II**, Weekly workshop on singularities, Université d'Aix-Marseille, France.
- Nov 2018 **"Topology of non-isolated singularities of complex surfaces"**, *Weekly seminar of complex geometry*, Université d'Aix-Marseille, France.
- Oct 2018 "Topology of non-isolated singularities of complex surfaces", Workshop "Lipschitz Geometry of Singularities", Casa Matemática Oaxaca, Oaxaca, Mexico.
  - The following talks were given during the seminar "GEOMETRY OF SIN-GULAR SPACES" at Université de Lille.
- Nov 2017 "About Klein's formula for plane curves".
- Nov 2017 "Plücker's formulae for plane curves".
- Apr 2017 "Nonisolated surface singularities studied à la Némethi-Szilard".
- Jan 2017 "Topology of non-degenerate normalized surface singularities".
- June 2016 "Topology of isolated non-degenerate surfaces singularities, following Oka".
- Feb 2016 "Integral points in polygons and genus of curves in the torus".

#### Attended conferences

- Jul 2019 "Joint meeting France-Brazil in Mathematics", IMPA, Rio, Brazil.
- May 2019 **"Geometry and Topology of Singularities"**, Alfréd Rényi Institute of Mathematics, Budapest, Hungary.

- Oct 2018 Workshop "Lipschitz Geometry of Singularities", Casa Matemática Oaxaca, Oaxaca, Mexico.
- June 2018 International school on Singularities and Lipschitz Geometry, Unidad Cuernavaca del Instituto de Matemáticas, UNAM, Mexico.
- Dec 2017 Theory of Valuations, Université Paris 7.
- July 2017 Galois Meets Newton: Algebraic and Geometric aspects of Singularity Theory, Conference in honor of A. Khovanskii, Weizmann Institute of Science, Israel.
- Feb 2017 **A panorama on singular varieties**, *Conference in honor of Lê Dũng Tráng*, Institute of Mathematics of the University of Sevilla IMUS, Spain.
- Nov 2016 **The 4th Franco-Japanese-Vietnamese Singularities**, Université Savoie-Mont Blanc, Chambéry, France.
- Oct 2016 Resolution of foliations, Université Paris 7, France.
- May 2016 Nonisolated singularities, Université de Lille, France.
- May 2016 **Algebra, geometry and topology of singularities**, *One week of school and one week of conferences*, Galatasaray University, Istanbul, Turkey.
- Feb 2016 **Winter Braids VI**, *School on braids and low dimensional topology*, Université de Lille, France.

#### Participation to research networks

2019 Involved in the project "Jets, arcs and invariants of surface singularities", along with M. Tosun (Galatasaray university, Turkey), C. Plénat (Aix-Marseille university, France), H. Mourtada (Université Paris-Diderot, France), M. Ruggiero (Université Paris-Diderot, France) and B. Karadeniz (Galatasaray university, Turkey), French-Turkish research project, implying a stay in Istanbul in July 2019.

#### **Teaching**

- 2019 2020 **Teaching basic calculus and algebra to 1st and 2nd year students**, *176 hours*, Université Aix-Marseille, Marseille, France.
- 2018 2019 **Teaching basic analysis and algebra to 1st and 2nd year students**, *192 hours*, Ecole Polytech Marseille, Marseille, France.
- 2015 2018 Assistant teacher in Télécom engineer school for 1st and 2nd year students, 64 hours of teaching per year, Université de Lille.
- 2014–2015 Oral examiner for weekly exams of bachelor students, Lycée Saint Paul, Lille.
- 2011 2016 **Teacher for private lessons**, in various contexts, as a volunteer or not.

Computer skills

Programming CAML, C++

Software LATEX, OpenOffice, Linux, Maple, IPE, Sage

## Languages

French
English
Arabic, Spanish
German

Mothertongue Fluent Basic, currently learning Basic words and phrases