# Curriculum Vitae for Lisbeth Fajstrup

**Personal:** Danish citizen. Born March 8, 1960.
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**Research profile**
With a background in algebraic topology, my research is on the intersection between mathematics and its applications. In 1996, together with two colleagues - at AAU and at ENS Paris - I founded a new mathematical research area,*directed algebraic topology* to address research questions in concurrency theory. The area has grown and we address questions in both mathematics - curiosity driven - and in computer science - application driven.
Applied algebraic topology in general is a growing field. My connections to, understanding of, and interest in all these applications, such as topological data analysis, the dissemination of these ideas and the possible new applications, is a central part of my profile.
I am a strong communicator of ideas, be it mathematical ideas and techniques to applied researchers or vice versa.
Moreover, I contribute to research in other fields, whenever a mathematical expertise is useful, be it algebraic topology or not.

**Academic Degrees:**

1988: Cand. Scient. (M.S.), Mathematics with physics minor. University of Aarhus.
1992: Ph.D., Mathematics. University of Aarhus.

**Academic Positions:**

1992–1996: Assistant Professor, University of Aalborg, Department of Mathematics.
1996–: Associate Professor, University of Aalborg, Department of Mathematics.

**Visiting Positions, recent:**

October-November 2013: Visiting Member of Institute for Mathematics and its Applications, Minneapolis, Minnesota.
September 2017: Invited researcher. Hausdorff Research Institute for Mathematics. Program: Applied and Computational Algebraic Topology. Bonn, Germany.

**Conference organization, research administration and scientific committees:**

: EU Cost Action 17139 EUTOPIA, European Topology Interdisciplinary Action. Management committee member for Denmark. 2018–2022

: Geometric and Topological Methods in Computer Science, GETCO, several times since 2000 latest 2020.
: Summerschool, MiLyon, Lyon France, January 2014.
: Summerschool, Mathematics of Planet Earth. ICTP Trieste, May 27- June 1 2013.
: Special session on Algebraic Topology at the EMS weekend in Aarhus. 5-7 April 2013
: Applications of Combinatorial Topology to Computer Science. March 18-23, 2012. Schloss Dagstuhl, Germany. `http://www.dagstuhl.de/en/program/calendar/semhp/?semnr=12121`
: ACAT, Applied and Computational Algebraic Topology in Aalborg. August 2012
: Algebraic Topological Methods in Computer Science III, ATMCS III, Paris, 2008. `http://www.lix.polytechnique.fr/~sanjeevi/atmcs/`

**Invited plenary talks (recent):**
September 2021 *Meeting of the Centre for Topological Data Analysis*, Liverpool, Great Britain (online)
April 2021 *Thematic Einsten Semester on Geometric and Topological Structure of Materials* Thematic Day on Applied Facets of Geometry and Topology. Berlin, Germany (Online)
February-March 2020 *Focus Program on New geometric Methods in Neuroscience* Four plenary talks. Fields Institute, Toronto, Canada.
September 2018 *GETCO'2018 Geometric and Topological Methods in Computer Science*. Oaxaca, Mexico.
July 2018 *Methods and Tools for Distributed Hybrid Systems*. Ecole Polytechnique, Paris, France.
December 2017 *Women in Topology*. MSRI, Berkeley, USA.
August 2017 *Applied Algebraic Topology 2017*. Sapporo Japan.
May 2017 *Conference on Applied and Computational Algebraic Topology.* Hausdorff Research Institute for Mathematics. Bonn, Germany.
July 2016 *ATMCS7 2016. Applied Topology. Methods Computation and Science.* Torino, Italy.
December 2015 *Second School and Conference on Topological Data Analysis.* Queretaro, Mexico.
**Externallly funded projects**

: AI- Aalborg Intelligence. 1/8 2020 - 31/7-2024. NOVO, Torben Tvedebrink PI, Mikkel Meyer Andersen CoPI, Fajstrup CoPI
: NCUM Nationalt Center for Udvikling af Matematikundervisning. I am a member of an expert committee. Project description in VBN
: Deciphering Nanoporosity of Amorphous Materials using Topological Data Analysis. FNU 2. 1/9-2021-28/2-2026.- SmedskjÃ¦r, Morten Mattrup (PI (principal investigator)), Fajstrup, Lisbeth (CoPI)Biscio, Christophe (CoPI)

: Danish Data Science Academy. 2021 –. NOVO and Villum. Member of the Committee for Education and Networking.

**Dissemination - examples:**

· 2016 - present. Main author of `http://blog.math.aau.dk` (70+ entries)
· 2016 Film about algebraic topology for high school students.
· 1992 - present. Lectures on mathematical subjects for e.g. high school students and teachers.
· 1995 - present. Interviews on mathematics for newspapers and radio.
· 2006 - 2011. Author of the Danish Numb3rs blog (200+ entries)
· 2009 Interview to video on European Women in Mathematics. Part 1,Part 2, Part 3

**Actions for diversity**

2017-now: Chairing a research group within my area for young women. Starting point: MSRI meeting for Women in Topology, Berkeley, USA.

2014-2020: Vice Chair, the European Mathematical Society Committee for Women in Mathematics.

2010-2020: Member of the European Mathematical Society Committee for Women in Mathematics.

2009-2013: Deputy Convenor. European Women in Mathematics.

1997-2007: Regional Coordinator for Denmark. European Women in Mathematics.