

Updated  
October 2, 2024

## Personal information

Name / Surname

**Elia Fusi**

## Current position

Dates

Position

Institution

Supervisor

01/11/2021– 31/10/2024

**Ph.D student**

Università degli studi di Torino

Prof. Luigi Vezzoni

## Education

Title awarded

Date

Name of the institution

Title of the thesis

Supervisor

Title awarded

Date

Name of the institution

Title of the thesis

Supervisor

Title awarded

Dates

Name of the institution

## Research areas

## Publications

1

2

3

**M.Sc. in Mathematics, 110/110 cum laude**

29/04/2021

Università di Firenze

*The prescribed Chern scalar curvature problem*

Prof. Daniele Angella

**B.Sc. in Mathematics, 110/110**

24/10/2018

Università di Firenze

*La formula di Künneth e il Teorema dei coefficienti universali*

Künneth's Formula and universal coefficient Theorem

Prof.ssa Elena Rubei

**Scientific high school diploma, 90/100**

2010-2015

Liceo Antonio Gramsci, Firenze

Complex non-Kähler Geometry; elliptic and parabolic PDEs; geometric flows.

E. Fusi, L. Vezzoni. *On the pluriclosed flow on Oeljeklaus–Toma manifolds*, Can. J. Math. 76, No. 1, 39–65 (2024), arXiv:2206.13149.

E. Fusi. *Solvability of a class of fully nonlinear elliptic equations on tori*, Ann. Mat. Pura Appl. (4) 202, No. 6, 2841–2859 (2023), arXiv:2204.12232.

E. Fusi. *The Prescribed Chern Scalar Curvature Problem*, J. Geom. Anal. 32, 187 (2022), arXiv:2105.10220.

## Preprints

- 2024 E. Fusi, G. Gentili, *Special metrics in hypercomplex geometry*, arXiv:2401.13056, submitted.
- 2024 E. Fusi, R.A. Lafuente, J. Stanfield. *The homogeneous generalized Ricci flow*, arXiv:2404.15749, submitted.

## Conference and Seminar talks

### Invited talks

- 27/09/2024 *Homogeneous Generalized Ricci flow*, “Progressi Recenti in Geometria Reale e Complessa XIII”, Levico Terme, Italy.
- 18/06/2024 *Homogeneous Generalized Ricci flow*, “PRIN meeting: Differential geometric aspects of manifolds via global analysis”, Università degli Studi di Torino, Italy.
- 14/09/2023 *Homogeneous Generalized Ricci flow*, Workshop “Geometric flows on complex manifolds”, Cortona, Italy.
- 21/06/2023 *On the Form-Type Calabi-Yau equation on 1-dimensional holomorphic bundles*, “Differential Geometry days at UQ”, Brisbane, Australia.

### Seminar talks

- 25/01/2024 *Special metrics in hypercomplex geometry*, Informal Geometric Analysis Seminar, Northwestern University, Evanston, USA.
- 04/05/2023 *Homogeneous generalized Ricci flow*, Seminario di Geometria, Università degli Studi di Torino, Torino, Italy.
- 24/04/2023 *Orbit type stratification and faces*, Analysis Seminar, University of Queensland, Brisbane, Australia.
- 21/05/2021 *The prescribed Chern scalar curvature problem*, Seminari di Geometria, Università di Parma, Parma, Italy.

### Contributed talks

- 08/04/2024 *Blowing up Chern-Ricci flat balanced metrics*, “Differential Geometry Workshop in Lerici”, Lerici, Italy.
- 18/05/2023 *On the pluriclosed flow on Oeljeklaus-Toma manifolds*, A Complex Differential Geometry meeting at UniTo, Torino, Italy.

## Attendance to schools, conferences and workshops

- 2024 *C.I.M.E. School “Calabi-Yau varieties”*, Cetraro, Italy, 29 July–3 August.  
*BRIDGES Meeting on special Geometries and stability*, Cargese, Corse, France, 25 June–5 July.  
*PRIN meeting: Differential geometric aspects of manifolds via global analysis*, Torino, Italy, June 17–18.  
Differential Geometry Workshop in Lerici, Lerici (La Spezia), Italy, April 8-10.
- 2023 *Workshop “Geometric flows on complex manifolds”*. Cortona, September 11–15.  
*7th Workshop “Complex Geometry and Lie Groups”*. Università del Salento, Lecce, May 22–26.  
*A Complex Differential Geometry Meeting at UniTo*. Università degli Studi di Torino, May 17–19.  
*Differential Geometry days at UQ*, University of Queensland, Brisbane, Australia, March 2–3.
- 2022 *Complex Analysis, Complex Geometry and Dynamics - in memory of Nessim Sibony*. Institut de Mathématiques d’Orsay, Université Paris-Saclay, Orsay, France, December 5-9.  
*New Directions in Representation Theory*, University of Hawaii, Hilo, Hawaii, USA, June 19–July 1.

*Special Riemannian Metrics and Curvature Functionals*, Centro di Ricerca Matematica Ennio de Giorgi, Pisa, Italy June 6–10.

*Informal Geometry workshop in Paradiso 2022*. Cogne (Aosta), Italy, February 3–5.

## Research visits

January- March 2024

*Northwestern University*, Evanston, Illinois, USA, visiting Prof. Gabor Székelyhidi, 47 days.

February- April 2023

*University of Queensland*, Brisbane, Australia, visiting Prof. Ramiro A. Lafuente, 87 days.

## Languages

Mother tongue

**Italian**

Other language(s)

English: Advanced, 09/2021 *IELTS Academic*, Overall Band score: 7,5, CEFR level C1.

## Other

2021–today

Member of “Gruppo Nazionale per le Strutture Algebriche, Geometriche e le loro Applicazioni”(GNSAGA), of Istituto Nazionale di Alta Matematica “Francesco Severi” (INdAM).

2024-today

Reviewer for *zbMATH Open*.

ORCID

0000-0002-9207-954X

Pontassieve (FI), October 2, 2024

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Place and date

Name Surname