



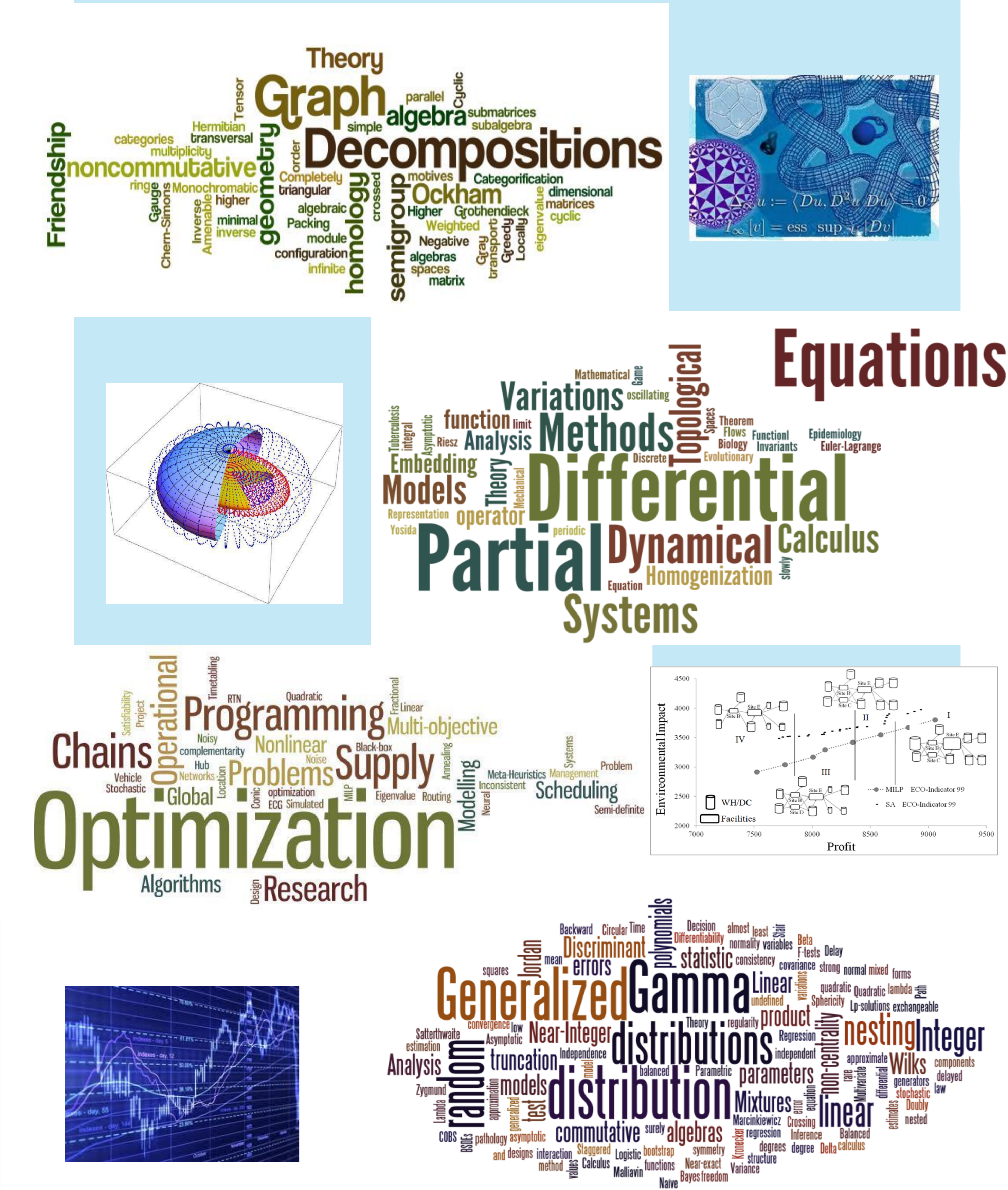
divMAT, Gazeta Matemática, Mathematics Planet Earth 2013, FCTI Program in Applied Mathematics, ClubeMath, MatNova 2013, Apdio, isto é MATEMÁTICA

People

We are

- Algebra**
8 Members / 1 PhD student / 1 Ciência 2008 / 1 FCT Researcher
- Differential Equations & Numerical Analysis**
10 Members / 3 PhD students / 1 Post doc
1 FCT Researcher
- Operational Research**
8 members / 1 PhD student
- Statistics & Risk Management**
31 Members / 8 PhD students / 1 Ciência 2008

Scientific Areas



Graph Theory: noncommutative, algebra, decompositions, Ockham, semigroup, homology, differential equations, partial differential systems, optimization, programming, multi-objective, supply, scheduling, gamma, linear, distributions, mixtures, linear, random, truncation, models, distribution, commutative, algebras, symmetry, near-exact, functions, near-exact, variance, Bayes freedom.

Equations: Variations, Methods, Topological, Differential, Partial, Dynamical, Calculus, Systems, Homogenization.

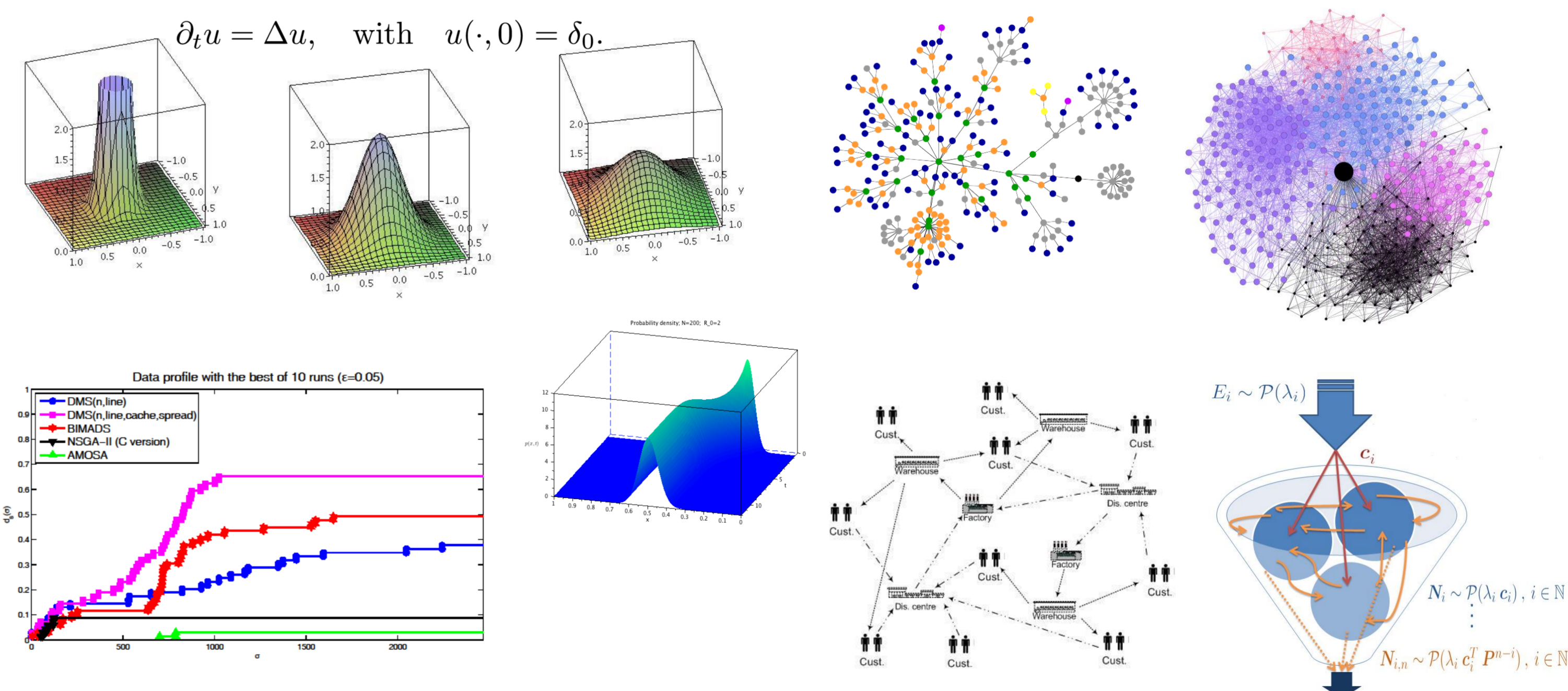
Optimization: Algorithms, Design, Research, Linear, distributions, mixtures, linear, random, truncation, models, distribution, commutative, algebras, symmetry, near-exact, functions, near-exact, variance, Bayes freedom.

Technologies / Facilities

Having problems?..... We offer you

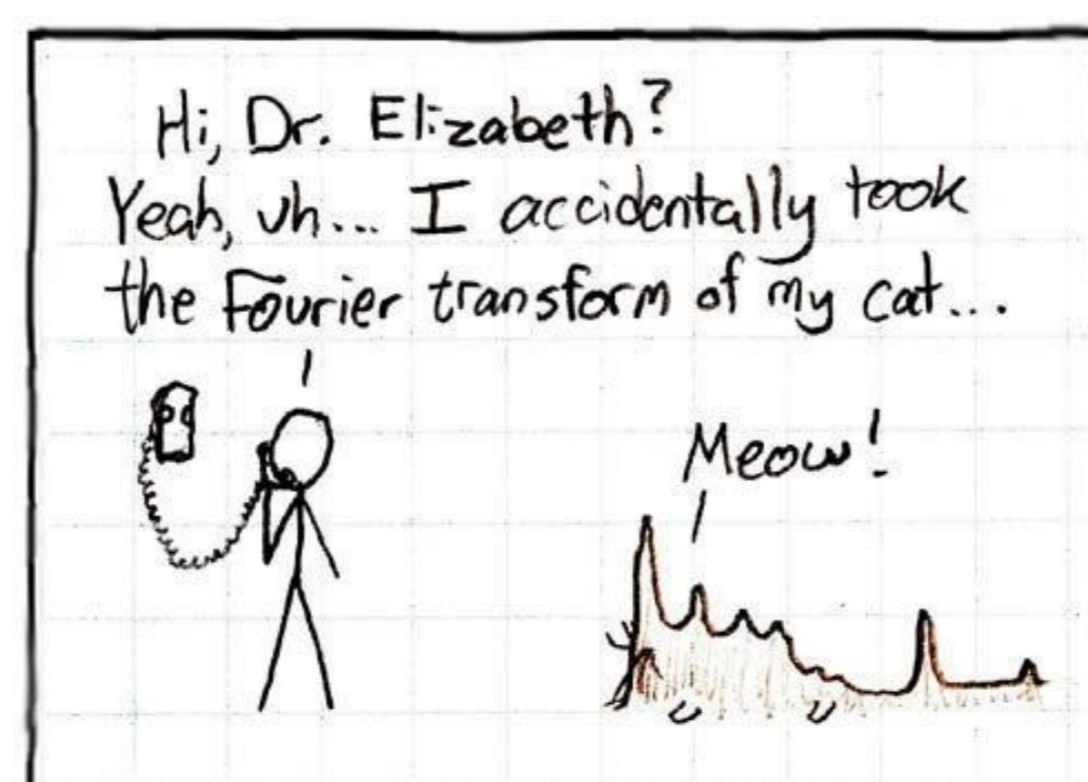
the **Mathematics** of

- Numerical Analysis
- Continuum Mechanics
- Composite Materials
- Evolutionary Biology and Epidemiology
- Game Theory
- Optimization & Algorithm design
- Combinatorics
- Statistics & Risk Management
- etc



Projects Running

- PTDC/MAT/113207/2009
Title: **H-decompositions of graphs: two new problems** (2011-2014)
- EXPL/MAT-CAL/0794/2013
Title: **Game theory and epidemiology** (2014-2015)
- EXPL/MAT-CAL/0840/2013
Title: **Variational problems in variable exponent Sobolev spaces** (2014-2015)
- PTDC/MAT-STA/0568/2012
Title: **Robust methods in statistical genetics** (2013-2015)
- FONDECYT-Chilean NSF
Title: **Constrained Inference Problems in Extreme Value Modeling** (2012-2015)
- PTDC/AGR-PRO/2335/2012
Title: **Strategies to Analyze and To detect INconsistent Genotypic responses to ENvironmental factors** (2013-2015)



Selected Papers

- B. Gohla and J. Faria Martins (2013), Pointed homotopy and pointed lax homotopy of 2-crossed module maps, *Advances in Mathematics*, 248 (25), 986-1049 [Impact factor = 1.373].
- H. Liu, A. Mestre and T. Sousa (2013), Rainbow vertex k-connection in graphs, *Discrete Applied Mathematics*, 161 (16-17), 2549-2555 [Impact factor = 0.718].
- G. Tabuada (2013), Chow motives versus noncommutative motives, *Journal of Noncommutative Geometry*, 7 (3), 767-786 [Impact factor = 0.878].
- A. M. Ribeiro and E. Zappale (2013), Relaxation of certain integral functionals depending on strain and chemical composition, *Chinese Annals of Mathematics*, Series B, 34 (4), 491-514 [Impact factor = 0.504].
- F. A. C. Chalub and M. O. Souza (2014), The frequency-dependent Wright-Fisher model: diffusive and non-diffusive approximations, *Journal of Mathematical Biology*, 68, 1089-1133 [Impact factor = 2.366].
- R. Ferreira and D. Gomes (2014), On the convergence of finite state mean-field games through Gamma-convergence, *Journal of Mathematical Analysis and Applications*, 418, 211-230 [Impact factor = 1.050].
- I. Correia, S. Nickel and F. Saldanha da Gama (2014), Multi-product capacitated single-allocation hub location problems: formulations and inequalities, *Networks & Spatial Economics*, 14 (1), 1-25 [Impact factor = 1.226].
- T. P. R. Ramos, M. I. Gomes and A. P. Barbosa-Póvoa (2014), Planning a sustainable reverse logistics system: balancing costs with environmental and social concerns, *OMEGA*, 48, 60-74 [Impact factor = 3.024].
- B. C. Arnold, C. A. Coelho and F. J. Marques (2013), The distribution of the product of powers of independent uniform random variables - A simple but useful tool to address and better understand the structure of some distributions, *Journal of Multivariate Analysis*, 113, 19-36 [Impact factor = 1.063].
- J. L. da Silva and J. T. Mexia (2013), Strong consistency of least squares estimates with i.i.d. errors with mean values not necessarily defined, *Statistics*, 47 (4), 707-714 [Impact factor = 1.258].