Curriculum Vitae

Dr. Lisa Bugnet

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Center for Computational Astrophysics
Flatiron Institute
Simons foundation
162 5th Avenue,
New York, NY 10010
United States

Scientific expertise

Stellar Astrophysics
Asteroseismology
Stellar dynamics : magnetism and rotation

Advanced data analysis
Asteroseismic/photometric data analysis
Machine learning : i.e. Random Forest, Neural Networks,...

Modeling & Theory
Stellar inner structure and evolution modeling (MESA)
Stellar pulsations modeling (GYRE)
Theory of Stellar oscillations in presence of magnetism and rotation (Magnetohydrodynamics)

2020 - ... **Flatiron Research Fellow at the Center for Computational Astrophysics of the Flatiron Institute.**
New York, USA

Education

2017 - 2020 **Ph.D. in Astrophysics, supervised by Drs. Rafael A. García, Stéphane Mathis & Savita Mathur**

Characterization of solar-type stars and study of their internal magnetic fields along the evolution.
Machine learning for asteroseismology and theoretical constraints for internal magnetic fields.

Defended on 2020, September 28th
Laboratory Dynamics of Stars, (Exo)-planets and their Environment, Department of Astrophysics, The French Alternative Energies and Atomic Energy Commission (CEA). *Very Honorable, with Committee Praise*.

2016 - 2017 **Master of Science, Paris Observatory**, major in *Astrophysics*, *magna cum laude honors*.
Master thesis FliPer *: a new tool to study stellar global parameters.*
supervision : Drs. R.A. García & S. Mathur [4 months], CEA Saclay.

2014 - 2017 **Master of Science, École Normale Supérieure of Paris (ENS)**, major in *Earth Sciences*, *magna cum laude honors*.
Research internship *Dynamics of the accretion disc of the moon : high energetic impact on the Earth.*
Supervision : Pr. D. Stevenson [6 months], CalTech (California, USA).
Volunteer internship *Modeling of the formation of the Moon : accretion and chemical composition.*
Supervision : Pr. S. Charnoz [6 months, 1 day per week], Institut de Physique du Globe de Paris (IPGP).
Research internship *Modeling of the formation of the Moon : accretion and chemical composition.*
Supervision : Pr. S. Charnoz [2 months], Institut de Physique du Globe de Paris (IPGP).

2012 - 2014 Preparatory classes for Grandes Écoles, *Physics-Chemistry*. La Martinière Monplaisir, Lyon, France
2011 - 2012 Scientific baccalaureate certificate, *Physics-Chemistry-English major*, *summa cum laude honors*

Table of Contents

1- Publications & Communications

⊙ **18 Referee articles**, among which :
4 first author articles, 5 major contributions, 8 minor contributions, 321 citations (H-index=10)
The list of publications is presented on page 4.
Top 5 publications are indicated by the ✪ symbol in the detailed list of publications bellow

⊙ **20 Oral communications**, among which : 3 invited talks, 9 contributed talks, 8 invited seminars, 8 Proceedings.
The list of oral communications is presented on page 8

2- Fellowships & Prizes

⊡ **Independent Postdoctoral Research Fellow funded by the Research Foundation Flanders**, 1/10/2022-30/9/2025, Host Institute : KU Leuven, Belgium
⊡ **Flatiron Research Fellowship**, 2020 - 2023, Flatiron Institute, Simons foundation
⊡ **L'Oreal-UNESCO *For Women in Science, France, Young Talents* Fellow.** 2019, 15,000€ prize
Link to the program
⊡ **International Student mobility**, Funding for a 5 weeks stay at Institute of Astrophysics of Canarie Islands (IAC), 2018, Paris Diderot University

⊡ **PhD Prize of the International Astronomical Union**, division G : "Solar and Stellar physics", 2020
⊡ **PhD Prize of the French Society of Astronomy and Astrophysics**, 2021
⊡ **Best oral contribution**, TASC4/KASC11 *First Light in a new era of Astrophysics Conference*. 2018, Aarhus, Danemark

3- Student Supervision

♢ Adrien Deck Van Ruys, **Master thesis**, co-supervision with Prs. S. Mathis, R.A. García and Dr. S. Mathur, 2021.

— Impact of rotation on the excitation of acoustic mode at the surface of solar-type stars.

♢ Arthur Le Saux, **Master thesis**, co-supervision with Pr. R.A. García, 2019.

— In search for low-amplitude mixed modes in red giants with deep learning.
— An automatic classification of K2 targets based on the $\text{FliPer}_{\text{Class}}$ method.
Arthur is now a PhD student at the Exeter University, UK

♢ Sylvain Breton, **Master thesis**, co-supervision with Prs. R.A. García and P. Palle, 2019.

— On the automatic estimation of rotation period for FGKM main-sequence stars observed by *Kepler*.
Sylvain is now a PhD student at the CEA

♢ Thomas Claudet, **2-months undergraduate internship**, 2019.

— Building a "Zooniverse" outreach project from scratch : firsts step data analysis for the detection of binary stars from target pixel files.

4- Teaching

△ **Invited Lecturer, The 13th Session of the LSSTC Data Science Fellowship Program (DSFP)**, Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA) at Northwestern University, 2021
△ Mathematics Hands-on classes, Freshman and Sophomor years, Paris Sud University, 2017-2019
△ Master AMS Hands-on projects *Modeling Astrophysical systems*, ENSTA ParisTech', 2017-2018
△ Methodology class, freshman year, Paris Sud University, 2017-2018
△ Private lessons *Mathematics, Physics, Chemistry, Biology & Earth sciences*, Highschool, weekly : 7 students from 2014 to 2019

5- International collaborations

PLATO (ESA M3 space mission)

▶ Member of the PLATO Science Management Collaboration
  ▷ **In charge of sub-modules 23 (Mass from surface gravity and Radius) and 25 (Mass from density and Radius) in WP125 : MSAP5-2.**
  ▷ Member of WP 123 200 « Stellar convection »
  ▷ Member of WP 128 100 « Average seismic parameters »
  ▷ Member of WP 373 200 « Rotation and Activity Tools »
  ▷ Member of WP 121 200 « Transport of angular momentum »

TESS (NASA/MIT space mission)

▶ Member of the « Tess Asteroseismic Consortium » (TASC)
  ▷ Member of WG2 « Solar-like stars »
  ▷ Member of WG3 « Red giants »
▶ Member of « TESS Data for Asteroseismology » (T'DA), stellar classification branch

Kepler/K2 (NASA space missions)

▶ Member of « *Kepler* Asteroseismic Consortium » (KASC)
▶ Member of « APOKASC » consortium

Former member of the ERC grant « SPIRE » (Stars : dynamical processes driving tidal Interactions, Rotation, and Evolution). 2017-2021. PI : Dr. S. Mathis

6- Peer reviewing

⬣ Referee for « Nature Astronomy », 2021
⬣ Referee for « Astronomy & Astrophysics », 2021

⬣ Panelist for the "Golden Webinar in Astrophysics", "The Space Age of Asteroseismology : a Golden Opportunity to Dive Deep into Stars and Measure their Internal Physics" by Conny Aerts, 2021
⬣ Panelist for the "Transport in Stellar Interiors" KITP program conference, discussion on stellar internal magnetic fields, 2021

7- Outreach

⊡ **Jury first prize, French *Three-minute thesis* contest**, 2019, USPC Finale
Link to the video, and Link to the program
⊡ Jury second prize, *Chronothesis : My Thesis in 5 minutes*, 2018, French Astronomy Association

⋈ « *The Sun : The laugh of stars* »: Interview for « Le Sense Of Wonders » and « CEA Recherche », 2020
⋈ « *Du Big Bang aux Big Bands* » : Interview for The Night of Astronomy 2020
⋈ Podcast : « *Talents scientifiques* », Serious Audio - 2020
⋈ « *Étoiles en scène* » : Express conferences about the last news of cosmos, Grand Rex Movie Theater, Paris Observatory- Paris Science and Literature, December 2019
Link to the video
⋈ « *Asteroseismology : the laugh of stars* »: outreach video for the CEA YouTube channel October 2019
⋈ *Paris under the stars*, French Astronomy Association , Summer 2019
⋈ *Astronomy kids' day*, French Astronomy Association 2019

8- Language proficiency

French : Native
English : Fluent
German : Educational level (A2).

List of publications

Dr. Lisa Bugnet

Top 5 publications are indicated by the ✪ symbol

: 0000-0003-0142-4000

17 Referee articles, among which :
4 first author articles
4 major contributions
9 minor contributions

321 citations (H-index=10)

First Author Articles

Theoretical projects :

4. ✪ Magnetic signatures on mixed-mode frequencies
   I. An axisymmetric fossil field inside the core of red giants.
   Astronomy and Astrophysics 650 A53
   DOI : 10.1051/0004-6361/202039159
   cited : 3

   ***Bugnet, L.** et al., 2021*

   Abstract : Internal magnetic fields are one amongst the most serious candidates that are currently studied to solve two major problems of stellar astrophysics : 1) The angular momentum transport inside stars of all type and all ages is poorly constrained in our stellar models, resulting in core rotation rate estimates ten times larger than measured rotation rates for red giants. 2) Two population of red giants have been discovered, showing very different power density for their dipolar oscillation mode : intermediate-mass stars tends to have much lower dipolar amplitudes than low-mass stars. Stars more massive than ~ 1.1 $M_\odot$ are known to develop a convective core during the main-sequence : the dynamo process due to this convection could be the origin of a strong magnetic field, trapped inside the core of the star for the rest of its evolution. Such magnetic fields should impact mixed modes inside the core of red giants, and their signature should be visible in asteroseismic data. To unravel which constraints can be obtained from these observations, we theoretically investigate the effects of a plausible mixed axisymmetric magnetic field with various amplitudes on the mixed-mode frequencies of red giants. Applying a perturbative method, we estimate the magnetic splitting of the frequencies of simulated mixed dipolar modes that depends on the magnetic field strength and its configuration. The effects of the mass and the metallicity of the stars are explored, and we infer an upper limit for the strength of the field and the associated lower limit for the timescale of its action to redistribute angular momentum in stellar interiors. Finally, we estimate the internal magnetic field amplitude needed along the evolution for its signature on oscillation frequencies to be detectable inside *Kepler*, TESS and PLATO data.

3. ✪ Sounding the internal magnetism of stars using asymptotic magneto-asteroseismology.
   Astronomy and Astrophysics 647 A122
   DOI : 10.1051/0004-6361/202039180
   cited : 4

   Mathis, S., **Bugnet, L.*** et al., 2021*
   **S. Mathis and L. Bugnet equally contributed to this work.*

   Abstract : We theoretically study the impact of an axisymmetric stable fossil field on the oscillation frequency of solar-like stars along their evolution. A complete asymptotic analysis is derived, showing the potential of asteroseismology to probe the magnetism at each depth as this has recently been done for stellar rotation ; we show that low-frequency gravity modes coupled with acoustic modes may allow to probe the radial magnetic field component inside the core of red giants through data inversion.

Data analysis projects :

2. ✪ FliPer$_{\rm Class}$: In search of solar-like pulsators among TESS targets
   Astronomy and Astrophysics 624 A79
   DOI : 10.1051/0004-6361/201834780
   cited : 5

   ***Bugnet, L.** et al., 2019*
   : `https://github.com/lbugnet/FLIPER_CLASS`

Abstract : In this paper, we present a classification algorithm built to recognize solar-like pulsators among classical pulsators from TESS data. This machine learning algorithm relies on the global amount of power contained in the power spectral density (PSD), also known as the flicker in spectral power density (FliPer). Because each type of pulsating star has a characteristic background or pulsation pattern, the shape of the PSD at different frequencies can be used to characterize the type of pulsating star. Using noisy TESS-simulated data from the TESS Asteroseismic Science Consortium (TASC), we classify pulsators with a 98% accuracy. Among them, solar-like pulsating stars are recognized with a 99% accuracy, which is of great interest for a further seismic analysis of these stars.

1. ✪ FliPer: A global measure of power density to estimate surface gravities of main-sequence solar-like stars and red giants
Astronomy and Astrophysics 620 A38
DOI : 10.1051/0004-6361/201833106
cited : 18

***Bugnet, L.** et al., 2018*
: `https://github.com/lbugnet/FLIPER`

Abstract : In this work, we present a new metric called FliPer (Flicker in spectral power density, in opposition to the standard Flicker measurement which is computed in the time domain) ; it is able to extend the range for which reliable surface gravities can be obtained ($0.1 < \log g < 4.6$ dex) without performing any seismic analysis for stars brighter than $Kp < 14$. FliPer takes into account the average variability of a star measured in the power density spectrum in a given range of frequencies. Using a large set of asteroseismic targets it is possible to calibrate the behaviour of surface gravity with FliPer through machine learning. This calibration made with a random forest regressor covers a wide range of surface gravities from main-sequence stars to subgiants and red giants, with very small uncertainties from 0.04 to 0.1 dex. FliPer also constrains the surface gravities of main-sequence dwarfs using only long-cadence data for which the Nyquist frequency is too low to measure the acoustic-mode properties.

Major contributions

4. TESS Data for Asteroseismology (T'DA) Stellar Variability Classification Pipeline: Set-Up and Application to *Kepler* Q9 data
The Astronomical Journal 162 5
DOI : 10.3847/1538-3881/ac166a
cited : 4

*Audenaert, J., [...], **Bugnet, L.** et al., 2021*

Abstract : This is a collaborative effort to gather automatic methods for the automatic classification of oscillating stars observed during the TESS mission. The article describes the different algorithms composing the pipeline, and FliPer parameters are included into a large random forest procedure.

3. ROOSTER: a machine-learning analysis tool for *Kepler* stellar rotation periods
Astronomy and Astrophysics 647 A125
DOI : 10.1051/0004-6361/202039947
cited : 5

*Breton, S.N., Santos, A.R.G., **Bugnet, L.** et al., 2021*

Abstract : We adapted the $\text{FliPer}_{\text{Class}}$ random forest classifier to detect stars that present rotation signals in the asteroseismic data, and to retrieve the correct rotation period from various non-automatic measurements

2. Surface Rotation and Photometric Activity for *Kepler* Targets. I. M and K Main-sequence Stars
The Astrophysical Journal Supplement Series, 244, 1
DOI : 10.3847/1538-4365/ab3b56
cited : 38

*Santos, A. R. G., García, R. A., Mathur, S., **Bugnet, L.** et al., 2019*

Abstract : We study $\sim 1,000$ stars observed by *Kepler* to determine why some solar-type stars do not present detectable modes of oscillations. The strong magnetic activity and/or the chemical composition of some stars could originate this non-detection. My contribution allowed to build the studied non-oscillating solar-type star sample by using the $\text{FliPer}_{\text{Class}}$ method.

1. ✪ Revisiting the impact of stellar magnetic activity on the detection of solar-like oscillations by *Kepler*
Frontiers in Astronomy and Space Sciences
DOI : 10.3389/fspas.2019.00046
cited : 14

*Mathur, S., García, R.A., **Bugnet, L.** et al., 2019*

Abstract : We study $\sim 1,000$ stars observed by *Kepler* to determine why some solar-type stars do not present detectable modes of oscillations. The strong magnetic activity and/or the chemical composition of some stars could originate this non-detection. My contribution allowed to build the studied non-oscillating solar-type star sample by using the $\text{FliPer}_{\text{Class}}$ method. This study provides a sample of well characterized stars on which I will base the search for surface magnetism in Axis B of my proposed research.

Minor contributions

9. Detections of solar-like oscillations in dwarfs and subgiants with Kepler DR25 short-cadence data
   Accepted for publication in AA

   Mathur, S., [...], ***Bugnet, L.*** *et al. 2021*

8. Horizontal shear instabilities in rotating stellar radiation zones
   II. Effects of the full Coriolis acceleration
   Astronomy and Astrophysics 635 A133
   DOI : 10.1051/0004-6361/201936863
   cited : 5

   Park. J., Prat, V., Mathis, S. & ***Bugnet, L.***

7. The K2 Galactic Archaeology Program Data Release 2: Asteroseismic Results from Campaigns 4, 6, and 7
   The Astrophysical Journal Supplement Series 251 23
   DOI : 10.3847/1538-4365/abbee3
   cited : 11

   Zinn, J.C. [...], ***Bugnet, L.*** *et al., 2021*

6. Detection and characterisation of oscillating red giants: first results from the TESS satellite
   The Astrophysical Journal Letter, 889 :L34
   DOI : 10.3847/2041-8213/ab6443
   cited : 20

   Silva Aguirre V. [...] ***Bugnet, L.*** *et al., 2020*

5. Age dating of an early Milky Way merger via asteroseismology of the naked-eye star ν Indi
   Nature Astronomy, 4, 382-389
   DOI : 10.1038/s41550-019-0975-9
   cited : 28

   Chaplin, W.J. [...] ***Bugnet, L.*** *et al., 2020*

4. A Hot Saturn Orbiting An Oscillating Late Subgiant Discovered by TESS
   The Astronomical Journal 157 6
   DOI : 10.3847/1538-3881/ab1488
   cited : 55

   Huber, D. [...] ***Bugnet, L.*** *et al., 2019*

3. A Search for Red Giant Solar-like Oscillations in All *Kepler* Data
   Monthly Notices of the Royal Astronomical Society 610
   DOI : 10.1093/mnras/stz622
   cited : 16

   Hon, M. [...] ***Bugnet, L.****, 2019*

2. TESS's first planet. A super-Earth transiting the naked-eye star π Mensae
   Astronomy and Astrophysics 619 L10
   DOI : 10.1051/0004-6361/201834289
   cited :68

   Gandolfi, D. [...] ***Bugnet, L****. et al., 2018*

1. HD 89345: a bright oscillating star hosting a transiting warm Saturn-sized planet observed by K2
   Monthly Notices of the Royal Astronomical Society 478 4866V
   DOI : 10.1093/mnras/sty1390
   cited :20

   Van Eylen, V. [...] ***Bugnet, L.*** *et al., 2018*

Contributions *in prep*

— Magnetic signatures on mixed-mode frequencies
II. Period spacings as a probe of red giant's internal magnetism.

Bugnet, L. 2022

— Unveiling stellar nature through oscillation pattern recognition

Bugnet, L., Le Saux, A. et al., 2022

— Impact of rotation on stochastic excitation of acoustic modes in solar-type stars

Deckx van Ruys, A. , Mathis, S., **Bugnet, L.**, et al., 2022

— Can we detect deep axisymmetric toroidal magnetic fields in stars ?
The magnetic traditional approximation of rotation

Dhouib, H., Mathis, S., **Bugnet, L.**, et al., 2022

— Estimation of stellar masses from non-seismic methods in the scope of the PLATO mission

Bugnet, L., A. Ellien, and PLATO Science Management collaboration et al., 2022

List of oral communications

Dr. Lisa Bugnet

20 Oral communications, among which :
3 invited talks
9 contributed talks
8 invited seminars
8 proceedings
7 posters

Invited Talks

3. French Society of Astronomy and Astrophysics, Phd Prize talk, 2021
   2021, Journées de la Société Française d'Astronomie et d'Astrophysique 2021 (Remote contribution because of the Covid-19)
2. Non-seismic surface gravity estimates
   2021, PLATO HOW#2 Workshop (Remote contribution because of the Covid-19)
1. The estimation of stellar masses from non-seismic methods
   2021, PLATO HOW#2 Workshop (Remote contribution because of the Covid-19)

Contributed talks

9. What to expect from non-seismic stellar characterization with PLATO lightcurves
   October 2021, PLATO Science Conference 2021 (Remote contribution because of the Covid-19)
8. In search for intermediate-mass stars' internal magnetic field
   April 2021, OBA stars conference (Remote contribution because of the Covid-19)
7. Probing fossil magnetic effects in the core of evolved low-mass stars using mixed-modes frequencies
   2020, EAS2020 (Remote contribution because of the Covid-19)
6. Probing fossil magnetic effects in the core of evolved low-mass stars using mixed-modes frequencies
   2020, MOBSTER-1 (Remote contribution because of the Covid-19)
5. The impact of fossil magnetic fields on dipolar mixed modes
   2019, Dynamics of the Sun and stars : Honoring the life and work of Michael Thompson, Boulder, CO, USA
4. FliPer$_{\rm Class}$: Towards the classification of all *Kepler* DR25 stars
   2019, Kepler Science Conference IV, Glendale, CA, USA
3. FliPer (Flicker in Power) : A new method to rapidly estimate surface gravities with high precision from main-sequence stars to red giants and red clump stars
   Best contribution prize
   2018, TASC4/KASC11 : First Light in a new era of Astrophysics, Aarhus University, Denmark
2. FliPer : A powerful methodology to rapidly estimate surface gravities and to classify stars
   2018, Annual conference of the French Society of Astronomy and Astrophysics, Bordeaux, France
1. FliPer : A new tool to study global seismic parameters and surface gravity
   2017, Red Giants Workshop, Vienna, Austria

Invited Seminars

8. Astrophysical Fluid Dynamics group seminar, DAMTP
   February 2021, Cambridge University, UK (Remote contribution because of the Covid-19)
7. Exeter Astrophysics Seminar
   October 2020, Exeter University, UK (Remote contribution because of the Covid-19)
6. Lagrange Seminar
   June 2020, Nice Observatory, France (Remote contribution because of the Covid-19)
5. Stellar group seminar
   January 2020, Geneva Observatory, Switzerland (Remote contribution because of the Covid-19)

4. The seminar day on machine learning in astrophysics
   January 2020, CEA Saclay, France
3. Stellar physics seminar at Instituto de Astrofísica de Canarias (IAC).
   2018, Tenerife, Canary Islands, Spain
2. Planetology Group Seminar at Instituto de Astrofísica de Canarias (IAC).
   2018, Tenerife, Canary Islands, Spain
1. Group seminar of the Laboratory Dynamics of Stars, (Exo)-planets and their Environment.
   2018, Astrophysics department, CEA Saclay, France

Proceedings

8. The impact of a fossil magnetic field on dipolar mixed-mode frequencies in sub- and red-giant stars
   2019, Dynamics of the Sun and stars : Honoring the life and work of Michael Thompson, Boulder, CO, USA

   ***Bugnet, L.** et al., 2019*

7. Automatic classification of K2 pulsating stars using machine learning techniques
   SF2A : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics

   *Le Saux, A., **Bugnet, L.** et al., 2019*

6. Determining surface rotation periods of solar-like stars observed by the *Kepler* mission using machine learning techniques
   SF2A : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics

   *Breton S., **Bugnet, L.** et al., 2019*

5. FliPer: Classifying TESS pulsating stars
   SF2A : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics

   ***Bugnet, L.** et al., 2018*

4. Effect of magnetic activity on the detection of acoustic modes in solar-like stars
   The 20th Cambridge Workshop on Cool Stars, Stellar Systems and the Sun

   *Mathur S., García R.A., **Bugnet, L.** et al., 2018*

3. FliPer: Checking the reliability of global seismic parameters from automatic pipelines
   SF2A : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics

   ***Bugnet, L.** et al., 2017*

2. Processing of Moon Material in the Protolunar Disk : Devolatilisation During the Protolunar Disk Phase
   Lunar and Planetary Science Conference

   *Charnoz, S., **Bugnet, L.**, Siebert, J., 2016*

1. Moon formation coupled with the protolunar disk
   Division for Planetary Sciences Meeting

   *Charnoz, S., **Bugnet, L.**, Michaut, C., 2015*

Posters

7. Automatic classification of K2 pulsating stars using machine learning techniques
   SF2A : The Annual meeting of the French Society of Astronomy and Astrophysics 2019

   *Le Saux, A., **Bugnet, L.** et al.*

6. Determining surface rotation periods of solar-like stars observed by the *Kepler* mission using machine learning techniques
   SF2A : The Annual meeting of the French Society of Astronomy and Astrophysics 2019

Breton S., ***Bugnet, L.*** *et al.*

5. Surface rotation and photometric activity for *Kepler* M and K dwarfs
   Kepler & K2 Science conference, Glendale, CA, USA, 2019

Santos A.R.G., [..], ***Bugnet, L.*** *et al.*

4. FliPer : An automatic method to estimate global parameters of stars.
   The 2019 "Congrès des Doctorants", Institut de Physique du Globe de Paris (IPGP), Paris, 2019

Bugnet, L. *et al.*

3. Correlation between the non detection of acoustic modes in solar-like stars and their magnetic activity
   TASC5/KASC12 workshop, MIT / Cambridge, USA, 2018

S. Mathur, R.A. García, ***Bugnet, L.*** *et al.*

2. Correlation between the non detection of acoustic modes in solar-like stars and their magnetic activity
   Cool stars 20, Boston / Cambridge, USA, 2018

S. Mathur, R.A. García, ***Bugnet, L.*** *et al.*

1. FliPer : Checking the reliability of global seismic parameters from automatic pipelines
   SF2A : The Annual meeting of the French Society of Astronomy and Astrophysics 2017

Bugnet, L. *et al.*