

First name(s) : Guillaume, Frédéric, Jean-Claude
Last name : Thomas
Nationality: French

Education

01/10/2014 to 31/09/2017 *Ph.D in Astrophysics*, Université de Strasbourg, France
01/09/2012 to 01/07/2014 *Master in Physics*, Université de Strasbourg, France

Professional experience

01/08/2020 to Present *Juan de la Cierva fellow (formación)*, Instituto de Astrofísica de Canarias, Spain
04/10/2017 to 14/07/2020 *NRC postdoctoral fellow*, National Research Council Herzberg Astronomy & Astrophysics Research Centre (HAA hereafter), Canada
01/10/2014 to 31/09/2017 *Ph.D in Astrophysics*, Observatoire Astronomique de Strasbourg, France

Publications in refereed journals

(the number of citations is in parenthesis)

- First autor publications

8. *Observing the stellar halo of Andromeda in cosmological simulations: the Auriga2PAndAS pipeline* **Thomas, G. F.** et al., *Submitted to ApJ* (ArXiv:2009.00010)
7. *The hidden past of M92: Detection and characterization of a newly formed 17° long stellar stream using the Canada-France Imaging Survey* **Thomas, G. F.** et al., *In press (ApJ)*
6. *Dwarfs or giants? Stellar metallicities and distances from ugrizG multi-band photometry* **Thomas, G. F.** et al., *ApJ* 2019, 886, 10 (1)
5. *A-type stars in the Canada-France Imaging Survey II. Tracing the height of the disc at large distances with Blue Stragglers* **Thomas G. F.** et al. 2019, *MNRAS*, 483, 3119 (5)
4. *A-type stars in the Canada-France Imaging Survey I. The stellar halo of the Milky Way traced to large radius by blue horizontal branch stars*, **Thomas G. F.** et al. 2018 *MNRAS*, 481, 5223 (10)
3. *Stellar streams as gravitational experiments II. Asymmetric tails of globular cluster streams* **Thomas G. F.**, Famaey B., Ibata R., Renaud F., Martin N. F., Kroupa P. 2018, *A&A*, 609, 44 (21)
2. *Stellar streams as gravitational experiments I. The case of Sagittarius*, **Thomas G. F.**, Famaey B., Ibata R., Lueghausen F., Kroupa P. 2017, *A&A*, 603, 65 (13)
1. *Exploring the reality of density substructures in the Palomar 5 stellar stream* **Thomas G. F.**, Ibata R., Famaey B., Martin N. F., Lewis G. F. 2016, *MNRAS*, 460, 2711 (15)

- Publications with major involvement

5. *A panoramic landscape of the Sagittarius stream in Gaia DR2 revealed with the STREAMFINDER Spyglass*, Ibata, R., Bellazzini, M., **Thomas G. F.** et al., 2020, *ApJ*, 891, 19 (8)
4. *Detection of strong epicyclic density spikes in the GD-1 stellar stream. An Absence of evidence for the influence of dark matter subhalos?*, Ibata, R., **Thomas G. F.** et al., 2020, *ApJ*, 891, 19 (5)
3. *The Pristine survey VII. A uniquely clean view of the Galactic outer halo using blue horizontal branch stars*, Starkenburg, E., ..., **Thomas G. F.** et al., 2019, *MNRAS*, 490, 5757 (2)
2. *Reconstructing the Milky Way star formation history from its white dwarfs* Fantin, N., ..., **Thomas, G. F.** et al., *MNRAS* 2019 *ApJ*, 887, 148 (13)

1. *Feeling the Pull: A Study of Natural Galactic Accelerometers. II. Kinematics and Mass of the Delicate Stellar Stream of the Palomar 5 Globular Cluster*
 Ibata R. A., Lewis G. F., **Thomas G.**, Matin N. F., Chapman S. 2017, *ApJ*, 842, 120 (12)

- Other publications as co-author

11. *The Pristine Dwarf-Galaxy survey -- III. Revealing the nature of the Milky Way globular cluster Sagittarius II*, Longeard N.,... **Thomas, G. F.** et al., *Submitted to MNRAS*
10. *The Pristine Inner Galaxy Survey (PIGS) II: Uncovering the most metal-poor populations in the inner Milky Way*, Arentsen A.,... **Thomas, G. F.** et al., 2020, *MNRAS*, 496, 4964 (1)
9. *Globular clusters in the Sagittarius stream. Revising members and candidates with Gaia DR2*, Bellazzini, M., Ibata. R., Malhan, K., Famaey, B., **Thomas, G. F.**, 2020, *MNRAS*, 496, 4964 (5)
8. *Pristine - VIII: The Metallicity distribution function of the Milky Way halo down to the extremely metal-poor regime*, Youakim K.,... **Thomas, G. F.** et al., 2020, *MNRAS*, 492, 4986 (3)
7. *Pristine IX: CFHT ESPaDOnS Spectroscopic Analysis of 115 Bright Metal-Poor Candidate Stars*, Venn K., ... **Thomas, G. F.** et al., 2020, *MNRAS*, 492, 3241 (11)
6. *The Pristine survey X: a large population of low-metallicity stars permeates the Galactic disk* Sestito, F., ..., **Thomas, G. F.** et al., 2020, *MNRAS*, *tmpL*, 20 (7)
5. *The Pristine Inner Galaxy Survey (PIGS) I: Tracing the kinematics of metal-poor stars in the Galactic bulge* Arentsen, A., ..., **Thomas, G. F.** et al., *MNRAS* 2020 491L, 11 (10)
4. *The Pristine Survey – VII. The first three years of medium resolution follow-up spectroscopy of Pristine EMP star candidates* Aguado, D., ..., **Thomas, G. F.** et al., *MNRAS* 2019, 490, 2241 (7)
3. *The large-scale structure of the halo of the Andromeda galaxy II. Hierarchical structure in the Pan-Andromeda Archaeological Survey* McConnachie A., ..., **Thomas G. F.** et al. 2018, *ApJ*, 868, 55 (33)
2. *Chemical Mapping of the Milky Way with The Canada-France Imaging Survey: A Non-parametric Metallicity-Distance Decomposition of the Galaxy* Ibata R., ..., **Thomas G. F.** et al. 2017, *ApJ*, 848, 129 (13)
1. *The Canada-France Imaging Survey: First Results from the u-Band Component* Ibata R., ..., **Thomas G. F.**, et al. 2017, *ApJ*, 848, 128 (33)

Non-refereed publications: conference proceedings and others

4. *LRP2020: Astrostatistics in Canada* Eadie G., ..., **Thomas G.** et al. 2019 *Arxiv* 1910.08857
3. *Dark Matter Physics with Wide Field Spectroscopic Surveys*, Ting, L., ..., **Thomas, G. F.**, et al. 2019, *Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, no. 252; Bulletin of the American Astronomical Society, Vol. 51, Issue 3, id. 252* (2019)
2. *The Detailed Science Case for the Maunakea Spectroscopic Explorer*, 2019 edition, MSE Science team (**incl. Thomas, G. F.**), *arXiv:1810.08695*
1. *The Sagittarius tidal stream as a gravitational experiment in the Milky Way*, **Thomas et al.** 2015, *proceeding of the Société Française d'Astronomie et d'Astrophysique*

Talks at international conferences/workshops; colloquia in other institutions

(Note: conferences/workshops where the applicant did not give oral contribution are not listed)

- 15/07/2020 Summer seminar series, Canada (Seminar)
- 25/11/2019 Seminar at the University of British Colombia, Canada (Seminar)
- 14/10/2019 Seminar at the GEPI, Meudon, France (Seminar)
- 07/10/2019 Unions Collaboration meeting, Strasbourg, France (2 Conference talks)
- 04/10/2019 Seminar at l'Observatoire Astronomique de Strasbourg, France (Seminar)
- 02/10/2019 Group meeting at the AIP, Postdam, Germany (Invited talk)

- 27/09/2019 *The functioning of galaxies: challenges for Newtonian and Milgromian dynamics, Bonn, Germany* (Conference talk)
- 07/08/2019 *Seminar at the ICC, Durham, United Kingdom* (Seminar)
- 26/02/2019 *Massively multiplexed spectroscopy with MSE: Science Project and Vision, Tucson, USA* (Conference talk)
- 19/10/2018 *ARCNet special seminar, Victoria, Canada* (Seminar)
- 09/10/2018 *Seminar at CWRU, Cleveland, USA* (Seminar)
- 25/09/2018 *Pristine collaboration meeting, Victoria, Canada* (Invited talk)
- 09/08/2018 *Summer seminar series, Victoria, Canada* (Seminar)
- 03/07/2018 *Stellar halo meeting, Heidelberg, Germany* (Conference talk)
- 06/07/2018 *CFIS Collaboration meeting, Toronto, Canada* (2 Conference talks)
- 25/05/2018 *CASCA, Victoria, Canada* (Conference talk)
- 10/04/2018 *Seminar at the HAA, Victoria, Canada* (Seminar)
- 13/06/2017 *1st CFIS Collaboration meeting, Paris, France* (Conference talk)
- 02/11/2016 *DM distribution in the era of Gaia, Stockholm, Sweden* (Conference talk)
- 18/12/2015 *AS Gaia, Nice, France* (Conference talk)
- 22/09/2015 *First Workshop on Progress in Modelling Galaxy Formation and Evolution in Milgromian dynamics, Strasbourg, France* (Invited talk)
- 21/06/2015 *Stellar Streams in the Local Universe, Ringberg, Germany* (Conference talk)
- 02/06/2015 *Journée SF2A, Toulouse, France* (Conference talk)

Granted observing proposals

6. *New clues on the Sagittarius dwarf merger from its outermost debris, VLT/FORS2, 106.21L8, 26h (Co-I)*
5. *Tracing the mass of the Milky Way at large radius with Blue Horizontal Branch stars, Gemini-South/GMOS, GS-2019A-Q-104, 4.5h (PI)*
4. *Tracing the mass of the Milky Way at large radius with Blue Horizontal Branch stars, Gemini-North/GMOS, GN-2019A-Q-103, 15.7h (PI)*
3. *Kinematic confirmation of the existence of a faint distant stellar, Gemini-North/GMOS, GN-2018A-DD-1, 2h, (PI)*
2. *The tidal tail of Palomar 5: first dynamical detection of the existence of LCDM subhaloes or evidence for alternative gravity?, CFHT/MegaCam, 17AF020, 21h (Co-I)*
1. *The asymmetric tail of Palomar 5: a smoking gun for alternative gravity? CFHT/MegaCam, 16AD005, 5.2 h (Co-I)*

Professional activities

- Referee for the leading astronomical periodical ApJ and for PASJ
- Member of the Canada-France-Imaging Survey (CFIS) since 2017
- Member of the Pristine Survey since 2019
- Member of the Weave Galactic Archeology science team since August 2020
- Member of the Scientific Working Group *Near-Field cosmology* for the development of *The Cosmological Advanced Survey Telescope for Optical and UV Research* (CASTOR)
- Member of different Scientific Working Group for the development of the *Maunakea Spectroscopic Explorer* (MSE)
- Instigator and organiser of the weekly *CFIS & Friends* meeting at the HAA (2 & 1/2 years)
- Co-organiser of the *Xgal coffee* at the HAA (2 & 1/2 years)
- Member and chair of the seminar organisation committee of the HAA (2 & 1/2 years)
- Member of the travel budget committee at the HAA (1 an)
- Involve in the Expression of Interest for the Large Range Program 2020 about the Astrostatistic in Canada

Supervising and monitoring activities

- Mentor of Nicolas Annau (Undergraduate student)
- Mentor of Jacklyn Jenssen (Graduate student)
- Supervisor of Zachary Watkins (Undergraduate student)
- Teaching assistant for a year in the Université de Strasbourg (10/2014-06/2015)

Outreach activities

- Scientific guide for a public visit of the Plaskett telescope in Victoria (Canada)
- Interviewed by Radio-Canada to speak about the century of the Dominion Astronomical Observatory
- Involved in outreach presentations on sciences and astronomy in different schools
- Invited speaker at *La Maison Francophone* in the University of Victoria, Canada (25/07/2019)
- Invited speaker of the Royal Astronomical Society of Canada in Victoria and Nanaimo
- Co-organiser of an outreach presentation in in collaboration with the association *Ensemble pour Granges* on *Le mystère de la matière*, in France (02/02/2016)
- Volunteer for the *Science days* in Rust (Germany) (13-14/10/2016)
- Creator of a public exposition entitled *La Galaxie d'Andromède* in Granges-sur-Vologne, France in 2001