Chiara Battistini

Personal information

Date of birth: 16 September 1984

Place of birth: Forlì (FC), Italy

Contact

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Present position

08/2015–now **Post-doc**, *ZAH-LSW*, Heidelberg (Germany)

Project on: Management and planning of the high resolution survey that will be part of the 4MOST survey.

LSW institute is involved in 4MOST survey with the construction of the high-resolution spectrograph and also leading the Milky Way Halo High Resolution survey. My job is to explore possible solutions for our target selections that can maximize our scientific outcome, and that at the same time can maintain an high efficiency of the survey without penalizing the other consortium surveys that are part of 4MOST. Considering that at the time of the survey first light (expected in 2022) more than 10 consortium surveys plus community proposals will be grouped in 4MOST, the last point is very important.

Education

10/2010–06/2015 **PhD in Astrophysics**, *Lund Observatory*, Lund (Sweden)
Thesis title: "The origin and evolution of iron-peak and neutron capture elements in the Milky Way disk"
Supervisors: Thomas Bensby and Sofia Feltzing
During my PhD studies I got experience on how to derive chemical abundances from dwarf stars and how to use this data to try to understand how the Milky Way evolved. This kind of study is also important to derive how the elements are formed, from which environment and on which timescale. In addition to this, during this time I have also been involved in the Gaia-ESO Survey. I was part of one of the teams (the LUMBA node) involved in determining stellar parameters and chemical abundances for the VLT/Giraffe spectra.

09/2006–07/2009 **Msc in Astrophysics and Cosmology**, *Bologna University*, Bologna (Italy)
Thesis title: "Study of spectroscopic gradients in elliptical galaxies"
Supervisor: Alberto Buzzoni

Conference attended

June 2019 **European Week of Astronomy and Space Science**, *Lyon 3 University*, Lyon (France)

November 2018 **Chemical evolution and nucleosynthesis across the Galaxy**, *MPIA Heidelberg*, Heidelberg, (Germany)

November 2018 **Survival of Dense Star Clusters in the Milky Way System** , *MPIA Heidelberg*, Heidelberg, (Germany)

November 2017 **Piercing the Galactic Darkness**, *MPIA Heidelberg*, Heidelberg, (Germany)

August 2017 **Precision Spectroscopy 2017**, *Departamento de Astronomia IAG, Universidade de São Paulo*, São Paulo (Brazil)

July 2017 **IAU Symposium 334: Rediscovering our Galaxy**, *AIP*, Potsdam (Germany)

June 2016 **Cool stars 19**, *Uppsala University*, Uppsala (Sweden)

September 2015 **Deciphering the Spectroscopic Signature of Our Cosmos**, *Institute of Astronomy, University of Cambridge*, Cambridge (UK)

May 2015 **New Milky Way**, *MIAPP Garching*, Munich (Germany)

July 2014 **Nuclei in the Cosmos XIII**, *University of Debrecen*, Debrecen (Hungary)

July 2013 **European Week of Astronomy and Space Science**, *University of Turku*, Turku (Finland)

Conference contributions

July 2017 **IAU Symposium 334: Rediscovering our Galaxy**, *AIP*, Potsdam (Germany)
"Exploring the bulge chemical history with microlensed dwarf stars: iron-peak and neutron-capture elements abundances" (poster)

June 2016 **Cool Stars 19**, *Uppsala University*, Uppsala (Sweden)
"The Origin and Chemical Evolution of Iron-Peak and Neutron-Capture Elements in the Milky Way Disk" (poster)

September 2015 **Deciphering the Spectroscopic Signature of Our Cosmos**, *Institute of Astronomy, University of Cambridge*, Cambridge (UK)
"The 4MOST high-resolution survey of Galactic halo stars" (talk)

July 2014 **Nuclei in the Cosmos XIII**, *University of Debrecen*, Debrecen (Hungary)
"Exploring the origin and evolution of the odd iron-peak elements in the Milky Way stellar disk" (poster)

July 2013 **European Week of Astronomy and Space Science**, *University of Turku*, Turku (Finland)
"Exploring the origin and evolution of iron-peak elements in the Galactic Disk" (poster)

Invited contributions

September 2019 **Instrumentation for Ground-based Optical and Infrared Astronomy** Heidelberg (Germany)
"4MOST Project", invited talk

June 2019 **European Week of Astronomy and Space Science** Lyon (France)
"Metal poor stars in 4MOST", invited talk

May 2019 **Preparing for 4MOST. A community workshop introducing ESO's next-generation spectroscopic survey facility** Garching (Germany)
"Consortium Survey 2: The Milky Way Halo High-Resolution Survey", invited talk

November 2018 **Survival of Dense Clusters in the Milky Way System,** MPIA, Heidelberg
"The MW system: streams, halo, satellites", panel discussion Co-chair

February 2018 **Astronomers convention 2018,** Zentrum für Astronomie, Heidelberg
"The Milky Way studies at ZAH", invited talk

January 2016 **HGSFP winter school** Obergurgl (Austria)
"Unravelling the chemical history of the Milky Way", invited lectures

Conference organization

November 2018 **Survival of Dense Clusters in the Milky Way System** MPIA Heidelberg (Germany)
Member of the SOC, graphic advisor

October 2017 **Piercing the Galactic Darkness** MPIA Heidelberg (Germany)
Co-chair of the SOC, graphic advisor

September 2016 **4MOST All Hands Meeting** Heidelberg (Germany)
Member of the SOC

Teaching experience

Co-supervision of two master students at LSW (Heidelberg)
The two students are working with Prof. Norbert Christlieb on metal-poor stars studies. One project is focused on the derivation of stellar parameters from the Hamburg/ESO survey using the data driven approach of The Cannon trained on a sample of synthetic spectra. The second project is the determination of chemical abundances of neutron-capture elements of a sample of metal-poor stars from the Hamburg/ESO survey.

Python block course winter semester 2018 (Heidelberg University)
Supervision of the exercise sessions of the course.

Outreach activities

Planetarium shows at Vattenhallen, Lund
In addition to the actual presentation of some shows at the planetarium (in English), I also contributed to the construction of parts of these shows.

Public lectures for high school students (2013,2014), Lund
Talk about the formation of chemical elements in the Universe during few days meeting organised by the Faculty of Science at Lund University targeted for high school students.

Extra

First level pedagogical course for teaching, *Lund University*

Basic of Project Management, *Heidelberg University*

Languages

Italian **Mother tongue**

English **Full professional profinciency**

French **Elementary proficiency**

Spanish **Elementary proficiency**

Computer skills

Operating systems	Mac, Windows, Linux
Astronomical software	IRAF, DS9, MIDAS, SME, TOPCAT
Programming languages	MATLAB, IDL, bash, SM
Word processings	LaTex, Microsoft Office, Mac iWork