



Parte A. PERSONAL INFORMATION		Date of the CVA		8/1/2020
First and family name	Ute Lisenfeld			
DNI/NIE/pasaporte		Age		
Researcher Codes	WoS Researcher ID	A-1637-2015		
	Código Orcid	000-0002-9471-5423		

A.1. Current position

University/Institution	Universidad Granada			
Department	Dpto. Física Teórica y del Cosmos			
Address	Avda. Fuentenueva S/N, 18071 Granada			
Phone number	958-242745	e-mail	ute@ugr.es	
Current position	Profesor Titular		Since	29/4/2008
Keywords	Formación estelar, medio interestelar, galaxias en interacción			

A.2. Education (title, institution, date)

Degree	University	Year
Physics Diplom	Heidelberg (Alemania)	1989
PhD	Heidelberg (Alemania)	1993

A.3. Indicators of quality in scientific production

- 4 sexenios, period of the last is 2009-2014
- 2PhD thesis supervised in the last 10
- Information about my publications in international journal of Q1 (Astronomy & Astrophysics, Astrophysical Journal, Astronomical Journal) obtained with SAO/NASA ADS (http://adsabs.harvard.edu/abstract_service.html)
- total number refereed articles: 91
- total number refereed articles between 2015-2019: 18
- total number of citations: 2750, citations/year: 110 (during 2015-2019: total 199, citations/years: 40)
- h-index: 34

Parte B. FREE SUMMARY OF THE CV (max. 3500 caracteres, including blank spaces)

Professional biography:

I carried out my PhD thesis during 1990-1993 at the University of Heidelberg in the Max-Planck-Institut for Nuclear Physics. The topic of my thesis was the far-infrared-radio correlation of galaxies which is a topic that combines the study of cosmic rays and dust in galaxies. Afterwards, I was a post-doc for two years in Cambridge (UK) where I worked on cosmic ray propagation, and for one year in Florence (Italy) at the Observatorio di Arcetri where I worked on dust in dwarf galaxies. Since 1996 I have been working in Granada, first as a post-doc at different institutions: One year at the University, four years at the 30m radiotelescope of the Instituto de Radioastronomía Milimétrica (IRAM) and two years at the Instituto de Astrofísica de Andalucía (CSIC). During my work at IRAM I acquired a broad knowledge about millimeter observations and properties of molecular gas in galaxies. Since 2004 I have been working at the University of Granada, first with a Ramón y Cajal position (2004-2008) and since 2008 as Profesor Titular. In 2010/2011 I had a sabbatical year which I spent at the California Institute of Technology (Pasadena, USA) working at IPAC (Infrared Processing and Analysis Center) about the interstellar and intergalactic medium in interacting galaxies.

Research lines:

My research field is the interstellar medium and star formation in galaxies in different environments and their relevance for galaxy evolution. During my thesis and the first post-

doctoral stays, I worked on propagation of relativistic electrons in galaxies, with the goal to better understand radio continuum data and the physical basis of the far-infrared-radio correlation. Since my post-doc at IRAM, my research interests have focused on molecular gas and dust in galaxies, in particular dwarf galaxies, starburst galaxies and galaxies in interaction. The basic question that drives my research is how stars form in different environments, and which is their relation to molecular gas, dust and galaxy evolution.

My research is mainly based on observational data, above all in the infrared to millimeter range. My research has produced on average 4 papers per year in international (Q1) journals.

Parte C. RELEVANT MERITS

C.1. Some relevant publications along my career

Dust in galaxies:

Lisenfeld, U., Ferrara A., Dust-to-Gas Ratio and Metal abundance in dwarf galaxies, 1998, ApJ 496, 145, 210 citations. *This was the first study that investigated the relation between the dust-to-gas mass ratio and the metallicity in galaxies.*

Lisenfeld, U., Israel, F., Stil, J., Sievers, A., (Sub)millimeter emission from NGC1569: An abundance of Very Small Grains, 2002, A&A 382, 860. 72 citations. *This was one of the first studies that detected a submillimeter excess in the dust emission of a dwarf galaxy and discussed its origin.*

Molecular gas in Tidal Dwarf galaxies:

Braine, J., Duc, P.-A., Lisenfeld, U., Charmandaris, V., Vallejo, O., Leon, S., Brinks, E., Abundant molecular gas in tidal dwarf galaxies: On-going galaxy formation, 2001, A&A, 378, 51, 135 citations. *In this work we presented and discussed detections of molecular gas in Tidal Dwarf Galaxies.*

Bournaud, F., Duc, P.-A., Brinks, E., Boquien, M., Amram, P., Lisenfeld, U., Koribalski, B. S., Walter, F., Charmandaris, V., Missing mass in collisional debris from galaxies, 2007, Science, 316, 1166, 114 citations. *This was the first study that measured the deficiency of dark matter in Tidal Dwarf Galaxies.*

Molecular gas and galaxy evolution in compact groups:

Lisenfeld, U., Braine, J., Duc, P.-A., Leon, S., Charmandaris, V., Brinks, E., Abundant molecular gas in the intergalactic medium of Stephan's Quintet, 2002, A&A, 395, 823, 33 citations. *This was the first study that found a large amount of intergalactic molecular gas in a compact group.*

Alatalo, K., Appleton, P.N., Lisenfeld, U., et al., Star formation suppression in Compact Group galaxies: A new path to quenching? 2015, ApJ 812, 117, 26 citations. *This work found a suppression of star formation in a subsample of compact group galaxies.*

Lisenfeld, U., Alatalo, K., Zucker, C., Appleton, P.N., Gallagher, S., Guillard, P., Johnson, K., The role of molecular gas in galaxy transition in compact groups, 2017, A&A 607, 110, 7 citations. *A sample of compact group galaxies that is right in the transition from actively star forming to quiescent was found and studied.*

Survey of molecular gas and dust in galaxies:

Lisenfeld, U., Espada, D., Verdes-Montenegro, L., et al. The AMIGA sample of isolated galaxies. IX. Molecular gas properties, 2011, A&A, 534, 102-127, 63 citations. *A sample of extremely isolated galaxies was presented and analyzed. This sample has since then been*

frequently used as a comparison sample for interaction studies.

C.2. Research project (during the last 10 years)

Title and reference: Resolviendo el enigma de la evolución de galaxias (AYA2017-84897-P)

Financed by: Ministerio de Economía, Industria y Competitividad

Dates: 1/1/2018-31/12/2020

Principal Investigator: Ute Lisenfeld & Jorge Jiménez Vicente

Amount: 80 000,00 Euros

Type of participation : Principal Investigator

Title and reference: Diseccionando galaxias: de las épocas oscuras al luminoso presente (AYA2014-53506-P)

Entidad financiera y convocatoria: Ministerio de Economía y Competitividad

Dates: 1/1/2015-31/12/2017

Principal Investigator: Ute Lisenfeld & Jorge Jiménez Vicente

Amount: 54 450,00 Euros

Type of participation : Principal Investigator

Title and reference: Magnetismo frente a gravitación: Un desafío cósmico (AYA2011-24728)

Financed by: Ministerio de Educación y Ciencias

Dates: 1/1/2012-31/12/2015

Principal Investigator: Eduardo Battaner López (Universidad de Granada)

Amount: 102000,00 Euros

Type of participation: Investigator

Title and reference: La evolución galáctica: Un desafío al moldeado cosmológico (AYA2011-24728)

Financed by: Ministerio de Educación y Ciencias (Plan Consolider, Grupo C)

Dates: 1/1/2008-31/12/2012

Principal Investigator: Eduardo Battaner López (Universidad de Granada)

Amount: 305 000,00 Euros

Type of participation: Investigator

C.5 Supervision of PhD and master thesis

PhD thesis

Name of the PhD student: Vicent Martínez Badenes

Title of the thesis: Molecular gas and star formation in Hickson Compact Groups: analysis and technical challenges

Date of the thesis defense: April 1, 2011

Supervisors: Ute Lisenfeld, Lourdes Verdes-Montenegro Atalaya, Daniel Espada Fernández

Name of the PhD student: Israel Rodríguez Hermelo

Title of the thesis: Interstellar dust in dwarf galaxies

Date of the thesis defense: November 30, 2012

Supervisors: Ute Lisenfeld, Monica Relaño Pastor

Name of the PhD student: Jesús Domínguez García

Title of the thesis: Assembly of void galaxies: Star formation and molecular gas

Start of the thesis: Agosto 2019 (thesis is ongoing)

Supervisors: Ute Lisenfeld, Isabel Pérez Martín

Master thesis

Name of the master student: Simón Díaz García

Postgraduate program: Física y Matemáticas (Universidad de Granada)

Title of the thesis: Gas molecular y formación estelar en barras de galaxias

Date of the defense: Julio 2012

Supervisors: Ute Lisenfeld, Isabel Pérez Martín

Name of the master student: Francisco Nogal

Postgraduate program: Física y Matemáticas (Universidad de Granada)

Title of the thesis: Formación estelar y gas molecular en Arp 245

Date of the defense: Julio 2014

Supervisors: Ute Lisenfeld

Name of the master student: David Rosado Belzas

Postgraduate program: Física y Matemáticas (Universidad de Granada)

Title of the thesis: Estudio de la formación estelar, gas y polvo en la galaxias Renancuajo

Date of the defense: Septiembre 2016

Supervisors: Ute Lisenfeld

Name of the master student: Eduardo González Chillón

Postgraduate program: Física y Matemáticas (Universidad de Granada)

Title of the thesis: Modelos de radiación sincrotrón de galaxias

Date of the defense: Febrero 2019

Supervisors: Ute Lisenfeld

C.6 Participation in assessment and advisory committees

- Member of the time allocation committee of the telescope ALMA (2012-2015)
- Expert in the assessment process of the ANEP
- Member of an international assessment committee of the German Research Society
- Referee (since 1998) for the international Q1 journals Astronomy and Astrophysics (A&A), Astrophysical Journal (ApJ), Monthly Notices of the Royal Astronomical Society (MNRAS) and Astrophysical Journal (ApJ)
- Member in >20 PhD thesis committees.

C.7 Teaching

Desde el curso 2004/2005 participo en la docencia en la Universidad Granada con un media de 6 créditos al año (un total de unos 100 créditos). Tengo 5 tramos docentes (quinquenios) concedidos (el último 2015).

He dado las siguientes asignaturas:

- Introducción en la Astrofísica (Licenciatura en Física)
- Astrofísica (Grado en Física), in Spanish and in English
- La astronomía a lo largo de la Historia (Libre configuración)
- Física de los Procesos Biológicas (Grado de Biología)
- Astrofísica y Cosmología (Master Fisymat)

C.6 Outreach activities

I have participated in the numerous outreach activities.

- Outreach talks for the general public and high-school and primary school students
- Participation in the “Semana de la Ciencia” of the University Granada (since 2011)
- Participation in the “Noche de los Investigadores” (2012-2014)
- Participation in the Project “Ciencia y Sociedad” of the University Granada
- Teacher in the “Campus Científicos de Verano” (2014-2018) at the UGR in “Física” y “Ciencias desde la Física y las Matemáticas”