

## Conference venue

The conference will be held in the CCC (Cultural and Congress Centre, <https://www.ccc.com.pt>) of Caldas da Rainha. Located 90 km North from Lisboa, 10 km East from the Atlantic coast and equally distant (35 km) from Peniche and Nazaré, major surf sites, Caldas da Rainha is a vivid small city, dedicated to arts, hosting the workshop of the Portuguese ceramist, Rafael Bordalo Pinheiro. The CCC is surrounded by several accommodation facilities, including three major hotels at less than 1 km.

## Reaching Caldas da Rainha

Caldas da Rainha can be easily accessed from the Lisbon Airport by Metro+bus, group van or individual taxi. By bus, Caldas da Rainha can be reached in about 1h10, at travel costs less than 9€. Buses leave from Sete-Rios Metro station (near Lisbon Zoo), and run at intervals of approximately one hour (depending on the time of the day). Timetables can be found at <https://www.rede-expressos.pt/en/>. Transport by van might be organised for groups at costs below 50 € per person (final cost depending on the number of persons). Taxi will cost about 100 € (eventually more). Prices are available online at eg. <http://cooptaxis.pt>.

## Travel information

Portugal is Schengen Area. A Schengen Visa will be required for participants from those countries that need a Visa. Please verify whether you need a Visa or not at: [www.schengenvisainfo.com/who-needs-schengen-visa/](http://www.schengenvisainfo.com/who-needs-schengen-visa/) and if necessary do ask for it as soon as possible, as it may take a few months to obtain one. A letter of invitation for this matter will be issued upon request.

## Website, pre-registration and structure

The conference website <http://pixe2019.org> is already available. Check it for news, more and updated information, registration forms and submission of abstracts and manuscripts

Pre-registration (without any payment) is important, and welcome, both for improved organization and for access to special benefits. Hotel reservation and TAP codes for special prices will be provided in reply to it.

As to structure, the PIXE2019 conference is promoted by the non-profit association AdFisicateca in a joint venture with researchers from the IEQUALTECS Lda enterprise, the University of Lisbon, the New University of Lisbon and the Polytechnic Institute of Leiria.

## Special rates for participants

After pre-registration, hotel rates of **60 €/night** per single and **75 €/night** per twin room are available at the SANA Silver Coast Hotel, as well as promotional prices for **TAP** flights (details at the website).

## Registration\*

Registration	Early	Normal
Regular participant	520 €	560 €
PhD student	380 €	420 €
Grad or MSc student**	130 €	150 €
Accompanying person	275 €	275 €

\*Special prices for enterprises stands.

\*\*Non-graduate students' participation is welcomed

## Important Dates

Abstract opening (oral and poster)	24 <sup>th</sup> Oct.
Pre-registration	24 <sup>th</sup> Oct.
Registration open	1 <sup>st</sup> Nov.
<b>Abstract deadline</b>	<b>30<sup>th</sup> Nov.</b>
Acceptance notifications (first date)	12 <sup>th</sup> Dec.
Late poster abstract deadline	1 <sup>st</sup> Feb.
<b>Early registration deadline</b>	<b>12<sup>th</sup> Jan.</b>
Manuscript submission opening	15 <sup>th</sup> Mar.
<b>Manuscript submission deadline</b>	<b>7<sup>th</sup> Apr.</b>

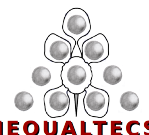
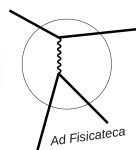
## Contacts

### Conference Chairs:

Miguel A. Reis : IST - ULisboa  
Luís C. Alves : IST - ULisboa  
M. Luísa Carvalho : FCT - UNL  
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### Conference Manager:

P. Cristina Chaves  
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PORTUGAL



## 16th Int. Conference on Particle Induced X-ray Emission

Unravelling secrets from atoms to planets

## Call for Abstracts

version Nov 2018

# 24-29 March 2019

## Caldas da Rainha PORTUGAL



<http://pixe2019.org>

## Second announcement

## Topics

### 1. Fundamental physics

- 1.1 Charged Particles propagation in solids
- 1.2 Ion atom collisions
- 1.3 Electron atom collisions
- 1.4 Solid state effects
- 1.5 Inner-shell transition physics
- 1.6 X-ray propagation and interactions in solids
- 1.7 Electron interactions in solids

### 2. Hardware

- 2.1 X-ray detectors
- 2.2 X-ray detectors electronics
- 2.3 Global system and developments
- 2.4 Merging PIXE with other techniques

### 3. Software

- 3.1 Codes, revisions and new developments
- 3.2 Algorithms
- 3.3 Spectra fitting and simulation

### 4. Applications and tutorials

- 4.1 Aerosol analysis
- 4.2 Archaeometry applications
- 4.3 Biological sample analysis
- 4.4 Cultural heritage
- 4.5 Forensic applications
- 4.6 Geological sample analysis
- 4.7 Software tutorials or workshops
- 4.8 Standard analysis tutorials

### 5. New fields and new methods

- 5.1 New methods or methodologies
- 5.2 Combination of PIXE and other techniques
- 5.3 Tough and challenging problems

### 6. Unsolved problems

- 6.1 Links to related techniques
- 6.2 Front end applications
- 6.3 High beam energy PIXE
- 6.4 Low beam energy PIXE
- 6.5 Chemical speciation

Commercial type presentations are welcome.

## Abstracts, proceedings & language

Abstracts for oral and poster presentations are accepted until the 30<sup>th</sup> of Nov. After this date only poster communications can be submitted. All works accepted and presented at the conference may be submitted to the conference proceedings special issue of NIM B. Manuscripts submitted will follow standard review processes until final acceptance for publication. The official language of the conference is English, which should be used for all presentations and printed materials.

## Preliminary programme

PIXE2019 - Caldas da Rainha 24-29 March 2019					
24 Mar 2019	Monday 25 Mar 2019	Tuesday 26 Mar 2019	Wednesday 27 Mar 2019	Thursday 28 Mar 2019	Friday 29 Mar 2019
9h00	Registration				I.8 - Aerosol D.D. Cohen
9h20	Opening	I.3 - PIXE & Synchrotron C. Ryan	Buses to ESTM	I.6 - Cultural Heritage P. Mandò	Aer. & Tox. App. O.33
9h40	I.1 - Fundament & App. Z. Smit	Soft. & Exp. Syst. O.11	I.5 - $\alpha$ particles PIXE J.L. Campbell (at ESTM amphitheater)	C.H. & Geo. App. O.22	Aer. & Tox. App. O.34
10h00	Fundamentals O.1	Soft. & Exp. Syst. O.12		C.H. & Geo. App. O.23	Aer. & Tox. App. O.35
10h20	Fundamentals O.2	Soft. & Exp. Syst. O.13		C.H. & Geo. App. O.24	Coffe break
10h40	Coffe break	Coffe break		Coffe break	I.9 - Forensic A. Simon
11h00	Fundamentals O.3	Soft. & Exp. Syst. O.14		C.H. & Geo. App. O.25	Forensic O.36
11h20	Fundamentals O.4	Soft. & Exp. Syst. O.15		C.H. & Geo. App. O.26	Forensic O.37
11h40	Fundamentals O.5	Soft. & Exp. Syst. O.16		C.H. & Geo. App. O.27	Closing
12h30	Lunch & Poster mounting*	Lunch		IAC Meeting	Poster removal*
13h00				Lunch	
13h30	I.2 - XMS Detectors A. Fleischmann	I.4 - PIXE in Geant4 A. Mantero		I.7 - Single cells & tomog. P. Barberet	
14h00	Detectors O.6	Simul. & Tech. Comb. O.17		Bio & Envir. App. O.28	
14h20	Detectors O.7	Simul. & Tech. Comb. O.18		Bio & Envir. App. O.29	
14h40	Coffe break	Coffe break		Coffe break	
15h00	Detectors O.8	Simul. & Tech. Comb. O.19		Bio & Envir. App. O.30	
15h20	Detectors O.9	Simul. & Tech. Comb. O.20		Bio & Envir. App. O.31	
15h40	Detectors O.10	Simul. & Tech. Comb. O.21		Bio & Envir. App. O.32	
16h00	Poster Session 1 Fundam. , Detectors & Software	Round table on Det. & Soft. C. Jeynes		Poster Session 3 B.E.A.T. & Foren. App.	
16h20		Poster Session 2 E.S.T.C. & Geo. App.			
16h40		IAC - IHC Meeting		Conference Dinner	
17h00	Welcome party				
17h20	Reception & Registration				
17h40					
18h00					
19h00					
20h00					

\* Posters will be in display during the whole conference period

Soft. & Exp. Syst. - Software and Experimental systems

Simul. & Tech. Comb. - Simulation and Techniques Combination

C.H. & Geo. App. - Cultural Heritage & Geological Applications

Bio & Envir. App. - Biological and Environmental Applications

Aer. & Tox. App. - Environmental and Toxicological Applications

E.S.T.C. & Geo. App. - Experimental Systems, Simulation, Techniques Combination, Cultural Heritage & Geological Applications

B.E.A.T. & Foren. App. - Biological, Environmental, Aerosol, Toxicological and Forensic Applications

## Scope & theme

The PIXE conference is a biennial event with 40 years of tradition as the international forum to discuss recent developments and future prospects in particle induced X-ray spectrometry. A meeting place for physicists, chemists, and specialists from many other fields of fundamental research and applications. Presently the PIXE technique, is gaining new momentum, starting to use new high resolution energy dispersive detectors and reaching new application areas. Since 2013, each meeting has a specific theme. The one for PIXE2019 being "Unravelling secrets from atoms to planets", which reflects its presently multi-scale expanding scope.

## Invited speakers

Ž. Šmit - Slovenia (Open, fundaments and applications);  
A. Fleischmann - Germany (Microcalorimeters);  
C. Ryan - Australia (PIXE vs Sync.); A. Mantero - Italy (Geant4); C. Jeynes - U.K. (Software);  
J.L. Campbell - Canada (  $\alpha$  particles PIXE used in Mars);  
P. Mandò - Italy (Art); P. Barberet - France (Single cells);  
D.D. Cohen - Australia (Atmosphere); A. Simon - Hungary & IAEA (Forensic applications).

## International Advisory Committee

M.A. Reis (Chair)	Portugal
M. Bailey	U.K.
T. Calligaro	France
D. D. Cohen	Australia
A. Denker	Germany
J. F. Dias	Brazil
S. Fazinić	Croatia
W. Kada	Japan
Z. Kertész	Hungary
F. Lucarelli	Italy
W. Maenhaut	Belgium
J. Miranda	Mexico
W. Przybyłowicz	South Africa
Ž. Šmit	Slovenia

## International Honorary Committee

J.L. Campbell	Canada
G. W. Grime	U.K.
K. Ishii	Japan
G. Lapicki	USA
P. A. Mandò	Italy
C. Ryan	Australia
Z. Szőkefalvi-Nagy	Hungary

## Local Organizing Committee

Miguel A. Reis	IST - ULisboa
Luís C. Alves	IST - ULisboa
Raúl Bernardino	ESTM - IPLeiria
Alexandra Carvalho	IEQUALTECS
M. Luísa Carvalho	FCT - UNL
P. Cristina Chaves	IST - ULisboa
Ana Taborda	AdFisicatega



Caldas Congress Centre



Website for more information

<http://pixe2019.org>