



Hands-on Astronomy

Welcome to Cardiff School of Physics and Astronomy. This pack contains the programme and a list of the resources on offer.

Wifi Access

Guest Wifi is available through CU-Guest Wifi. For those with an existing account, Eduroam should be available.

- Once connected, open a browser and click “I’m here for a Conference/School Open Day” (top right option of four buttons)
- Click on “I don’t have a username and would like to register” (second option)
- Fill in the form using the conference ID “**handson**”
- A username and password will be sent to the mobile number provided by SMS (text message).

Useful links

Some material for the conference, including an updated version of this document, will also be available on the Inspiring Science Education portal in the “Hands On Astronomy” community, which can be found at <http://portal.opendiscoveryspace.eu/community/hands-astronomy-828270>

To register for the community please visit

[http://portal.opendiscoveryspace.eu/user/register/yr7kKsux00JkX83wEJigyQ\\$3D\\$3D\\$3D\\$](http://portal.opendiscoveryspace.eu/user/register/yr7kKsux00JkX83wEJigyQ$3D$3D$3D$) and complete the form.

More information will also be available on the conference website:

<http://blogs.cardiff.ac.uk/physicsoutreach/hands-on-astronomy/>

Dinner Menus

The dinner on Monday night will be at TerraNova (in Cardiff Bay). A menu is available at

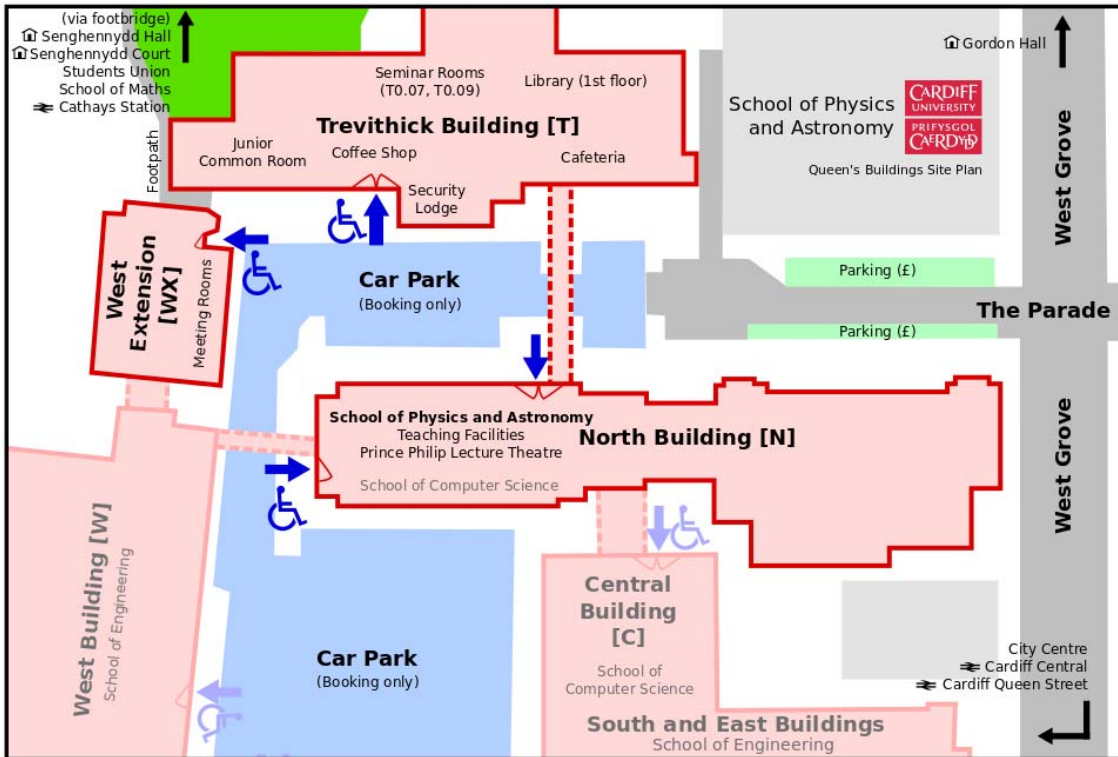
<http://www.terrannotecardiff.com/dining?iD=22198> .

The dinner on Wednesday night will be at The Thai House (close to the Ibis Hotel). Menu choices will need to be made by Wednesday lunchtime. A menu is available at <http://thaihouse.biz/a-la-carte/> .

Both restaurants are on the map at <http://blogs.cardiff.ac.uk/physicsoutreach/how-to-find-us/> .

Logistics

The conference will mostly be held in the West Extension Conference Suite, which is held in the West Extension building, shown on the map below:



Lunches will be in the cafeteria in the Trevithick Building.

Troubleshooting

If you have any problems, please ring:

Conference room (WX3.07/WX3.14): +44 (0)2920 870 169 / +44 (0)2920 870 165

Chris North (mobile): +44(0)7815 115 636

Travel and emergencies

Taxi: +44 (0)2920 333333 (Dragon) / +44 (0)2920 555555 (Premier) / +44 (0)2920 777777 (Captital)

Train tickets are available from machines or ticket offices. You should buy a ticket before getting on a train

In an emergency call 999 from any phone for police/ambulance/fire. The non-emergency number is 112.

Programme – Solar System & Space Missions

Monday 13th April

Title	Duration	Start time	End time	Presenter(s)	Venue
Arrival & Registration		09:30	10:00		WX3.14
Welcome and Introductions	0:30	10:00	10:30	CN	WX3.07
Open Science Resources	1:00	10:30	11:30	RD	WX3.07
Break	0:30	11:30	12:00		WX3.14
Space Scoop	1:00	12:00	13:00	SER	WX3.07
Lunch	1:00	13:00	14:00	(Diamond lab visit)	Refectory
Exoplanet Activities	1:00	14:00	15:00	EG	WX3.07
Break	0:30	15:00	15:30		WX3.14
Space in the Classroom	0:45	15:30	16:15	PH	WX3.07
Current missions	0:45	16:15	17:00	CN	WX3.07
End			17:00		

Tuesday 14th April

Title	Duration	Start time	End time	Presenter(s)	Venue
Start		10:00			
NAAP Labs	0:30	10:00	10:30	FL/SB/SGR	WX3.07
FT observations	0:45	10:30	11:15	PR/SGR/FL	WX3.07
Break	0:30	11:15	11:45		WX3.14
NSO observations	0:45	11:45	12:30	CL/FL	WX3.07
Lunch	1:00	12:30	13:30	(Detector Lab visit)	Refectory
Dry ice comets	0:30	13:30	14:00	PR	Lab
Astro Cymru 3D show	0:30	14:00	14:30	EW	WX3.07
Break	0:30	14:30	15:00		WX3.14
Museum & Down to Earth	2:00	15:00	17:00	JH	NMW
End			17:00		

Refreshments and lunch vouchers will be provided.

Programme – Stars, Galaxies & Cosmology

Wednesday 15th April

Title	Duration	Start time	End time	Presenter(s)	Venue
Arrival & Registration		9:30	10:00		WX3.14
Welcome and Introductions	0:15	10:00	10:15	CN	WX3.07
Star in a Box	1:00	10:15	11:15	CN	WX3.07
Break	0:30	11:15	11:45		WX3.14
Multiwavelength Universe	0:45	11:45	12:30	HG/CN	WX3.07
Lunch	1:00	12:30	13:30	(Laser lab visit)	Refectory
Designing Space Telescopes	0:45	13:30	14:15	CN	WX3.07
Gaia	1:00	14:15	15:15	MF	WX3.07
Break	0:30	15:15	15:45		WX3.14
Galaxy Zoo Navigate	1:00	15:45	16:45	JG	WX3.07
Cosmology	0:30	16:45	17:15	CN	WX3.07
End			17:15		

Thursday 16th April

Title	Duration	Start time	End time	Presenter(s)	Venue
Start		10:00			
Using Logger Pro	1:00	10:00	11:00	VE	WX3.07
Break	0:30	11:00	11:30		WX3.14
Open Science Resources	1:00	11:30	12:30	RD	WX3.07
Lunch	1:00	12:30	13:30	(Telescope visit)	Refectory
Big Ideas of Science	1:30	13:30	15:00	ET/FL	WX3.07
Action Plans	0:45	15:00	15:45	CN	WX3.07
Break	0:30	15:45	16:15		WX3.14
NSO & FT	0:45	16:15	17:00	FL/CL	WX3.07
End			17:00		

Refreshments and lunch vouchers will be provided.

Resources

The following table is a list of the resources, activities and projects presented during the conference, in the form of a talk and/or a workshop. It may not be exhaustive. Many are also available through the Inspiring Science Education portal.

Resource/Activity	Provider	Link
Inspiring Science Education		inspiringscience.eu
Open Discovery Space		opendiscoveryspace.eu
Go-Lab		go-lab-project.eu
ISE/ODS Portal	ISE/ODS	portal.opendiscoveryspace.eu/ise
Chromoscope	Cardiff University	www.chromoscope.net
Star in a Box	LCOGT / Cardiff University	lcogt.net/siab
Messier Bingo	LCOGT	lcogt.net/education/messierbingo
National Schools' Observatory	Liverpool John Moore's University	www.schoolsobservatory.org.uk
Faulkes Telescope Project	University of South Wales	www.faulkes-telescope.com
Impact Calculator	Down2Earth	simulator.down2earth.eu/
Universe in a Box	UNAWE	www.unawe.org/resources/universebox/
Space Scoop	UNAWE	http://unawe.org/kids
Gravity & Cosmology	Cardiff University	blogs.cardiff.ac.uk/physicsoutreach/resources/heavens-kitchen/
Multiwavelength Universe	Cardiff University	herschel.cf.ac.uk/activity/multiwavelength
CMB Simulator	Cardiff University	planck.cf.ac.uk/cmb-sim
Galaxy Zoo	Zooniverse	galaxyzoo.org
Logger Pro	Vernier	www.vernier.com/products/software/lp/
Gaia	University of Cambridge	gaia.ac.uk
Design a Space Telescope	Cardiff University	herschel.cf.ac.uk/activity/space-telescope
Stellarium		stellarium.org

Contributors

Name	Project/Role	Email
Rosa Doran	Nuclio / GoLab / ISE / ODS / GTTP	
Fraser Lewis	Faulkes Telescope / GoLab / NSO	
Chris North	Cardiff University / ISE	
Sarah Eve Roberts	Cardiff University	
Edward Gomez	Cardiff University / LCOGT	
Sophie Bartlett	Faulkes Telescope	
Paul Hill	Sirius Astronomy / ESERO-UK	
Jen Gupta	University of Portsmouth / Zooniverse	
Morgan Fraser	University of Cambridge / Gaia	
Chris Leigh	NSO / ODS	
Haley Gomez	Cardiff University / ISE	
Emma Wride	Astro Cymru	
Sarah Roberts	Faulkes Telescope / GoLab	
Paul Roche	Faulkes Telescope / GoLab	
Eleftheria Tsourlidaki	Ellinogermaniki Agogi	
Vince English	Vernier-Europe	
Andrea Meyrick	Techniquist	

Useful Links

Inspiring Science Education (ISE)

Inspiring Science Education	http://inspiringscience.eu
ISE UK website	http://tinyurl.com/inspiringscience
ISE web portal (part of ODS portal)	http://portal.opendiscovery.space.eu/ise

Cardiff School of Physics and Astronomy

School of Physics and Astronomy	http://www.astro.cf.ac.uk
Physics Engagement site	http://blogs.cf.ac.uk/physicsoutreach
Cardiff Uni Curriculum Support	http://sites.cardiff.ac.uk/curriculumsupport/
Chromoscope	http://www.chromoscope.net
Gravity and Cosmology	http://blogs.cardiff.ac.uk/physicsoutreach/resources/heavens-kitchen/
Black Hole Hunter	http://www.blackholehunter.org/

Herschel Space Observatory

Herschel UK website	http://herscheltelescope.org.uk
Herschel UK Education page	http://herscheltelescope.org.uk/education
Multiwavelength Universe	http://herscheltelescope.org.uk/activity/multiwavelength
Space Telescope Designer	http://herscheltelescope.org.uk/activity/space-telescope

Planck Satellite

Planck UK website	http://plancksatellite.org.uk
CMB Simulator	http://plancksatellite.org.uk/cmb-sim
Planckoscope	http://planck.cf.ac.uk/planckoscope

Las Cumbres Observatory Global Telescope Network (LCOGT)

LCOGT website	http://lcogt.net
LCOGT education page	http://lcogt.net/education
LCOGT activities	http://lcogt.net/education/activity
Star in a Box	http://lcogt.net/siab/
Star in a Box UK resources	http://blogs.cardiff.ac.uk/physicsoutreach/resources/star-in-a-box/
Virtual Sky	http://lcogt.net/virtualsky
LCOGT observations archive	http://lcogt.net/observations/
Messier Bingo	http://lcogt.net/education/messierbingo

Universe Awareness (UNAWE)

UNAWE website	http://www.unawe.org
Space Scoop	http://uk.unawe.org/kids/
Universe in a Box	http://www.unawe.org/resources/universebox/
Earthball booklet	http://www.unawe.org/resources/education/Earthball_booklet/

Faulkes Telescope Project

Faulkes Telescope Project	http://www.faulkes-telescope.com/
Impact Calculator	http://down2earth.eu/impact_calculator/
Go-Lab	http://www.go-lab-project.eu/

National Schools' Observatory

National Schools' Observatory	http://www.schoolsobservatory.org.uk/
Hunting for Asteroids	http://www.schoolsobservatory.org.uk/activ/asteroids
Open Discovery Space (ODS)	http://opendiscoveryspace.eu/
ODS portal	http://opendiscoveryspace.eu/

Zooniverse

Zooniverse	https://www.zooniverse.org/
Galaxy Zoo	http://www.galaxyzoo.org/
Galaxy Zoo Navigator	http://www.galaxyzoo.org/#/navigator/home
Asteroid Zoo	http://www.asteroidzoo.org/
Planet Hunters	http://planethunters.org
Milky Way Project	http://milkywayproject.org
Sunspotter	http://sunspotter.org
Moon Zoo	http://moonzoo.org

Other projects

Gaia UK website	http://gaia.ac.uk/
National Space Centre	http://www.spacecentre.co.uk/
National Space Academy	http://www.spacecentre.co.uk/home/national-space-academy
ESERO-UK	http://www.esero.org.uk/
Astro Edu	http://astroedu.iau.org/
Stellarium	http://www.stellarium.org/