



THE UNIVERSITY OF
WESTERN AUSTRALIA
Achieving International Excellence

Curtin
University of Technology

ICRAR is a partnership between The University of
Western Australia and Curtin University of Technology

ICRAR update Arniston, May 2010



Perth and Cape Town at night
© John Goldsmith Celestial Visions
www.twanight.org

Lister Staveley-Smith





New staff since Bunker Bay

Title	Name	Position	Status
Dr	Blackett, Anthony	Research Fellow: HAR Software	Arrived
Dr	Clarke, Nathan	Research Engineer - Digital Systems	Arrived
Dr	Godfrey, Leith	Research Fellow: HAR Research	Arrived
Ms	Gottschalk, Kirsten	Education and Outreach Officer	Arrived
Dr	Hyunh, Minh	Research Associate Professor	Oct-10
Ms	Kok, Kathy	Administrative Officer	Arrived
Ms	McNamara, Sara	Administrative Assistant	Arrived
Dr	Meyer, Martin	Research Associate Professor	Arrived
Dr	Morgan, John	Research Fellow: Wide-field VLBI – RASE	May-10
Dr	Ord, Stephen	Senior Research Fellow: HTR Research	Jan-11
Dr	Padhi, Shantanu	Research Engineer – Antennas	Jun-10
Dr	Schlagenhauer, Franz	Research Engineer - EMC	Arrived
Mr	Tickner, Jonathan	Senior Technical Officer	Arrived
Mr	Waterson, Mark	RE - Laboratory Manager - funded via RASE	Arrived
Dr	Westmier, Tobias	Research Assistant Professor	Oct-10
Positions filled via direct approaches			
Prof	Meurer, Gerhardt	Research Winthrop Prof (HI signature theme)	Arrived
Prof	Wicenec, Andreas	Research Winthrop Prof (DIR signature theme lead)	Jul-10

- ★ 17 New Staff
- ★ ICRAR total staff now 46
- ★ 20 PG Students
- ★ 11 Distinguished associates





Super Science

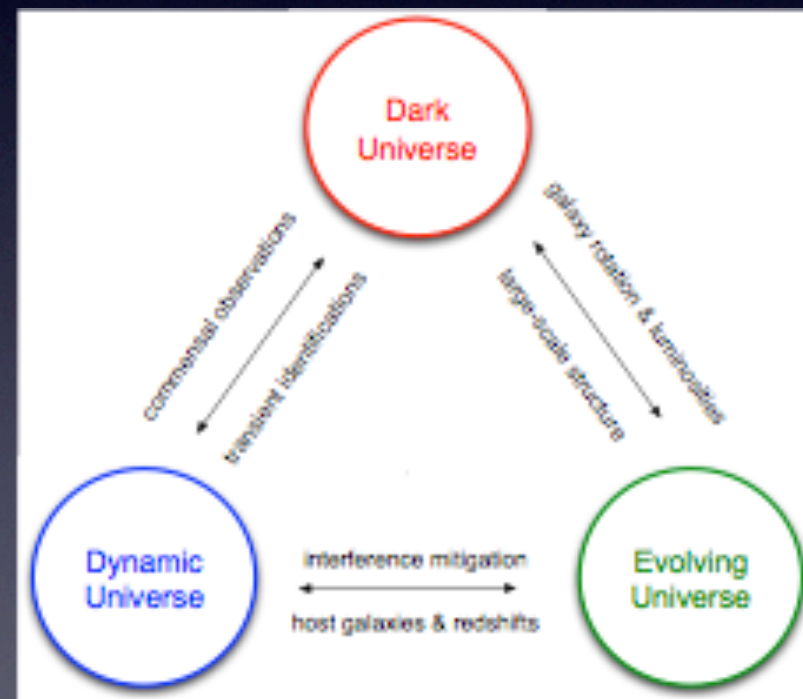
- ★ ICRAR was successful at winning 5 ARC early-career Super Science Fellowships.
- ★ Total of 33 Fellowships awarded over two years to Space Science and Astronomy.
 - ★ 2 ICRAR for Wallaby/Dingo
 - ★ 3 ICRAR for MWA
- ★ Another 8 for ASKAP science, including 3 for CSIRO





CAASTRO proposal

- ★ ARC Centre of Excellence for All Sky Astrophysics : CAASTRO : USyd (Gaensler - Director), ICRAR (Staveley-Smith), Swinburne (Bailes), Melbourne (Wyithe), ANU (Schmidt).
- ★ Successful in Stage 1 (31/260 Eols)
- ★ Full proposal submitted April 19
- ★ Interviews in July
- ★ \$1M/yr to ICRAR (7 staff x 7 yrs)





The ICRAR Plan

- ★ Plan Version 1.5 Approved by ICRAR Board on 8 April 2010
- ★ ICRAR Plan V1.5 has \$28.3M and 26.3 FTE as a CORE program - includes the 17 new hires
- ★ 14% contingency





The ICRAR CORE Phase II proposal

★ 4 Science Positions (HI and Variable Universe)

★ 3 ICT Positions

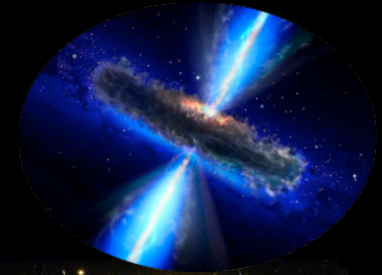
★ 3 Engineering Positions





Programs

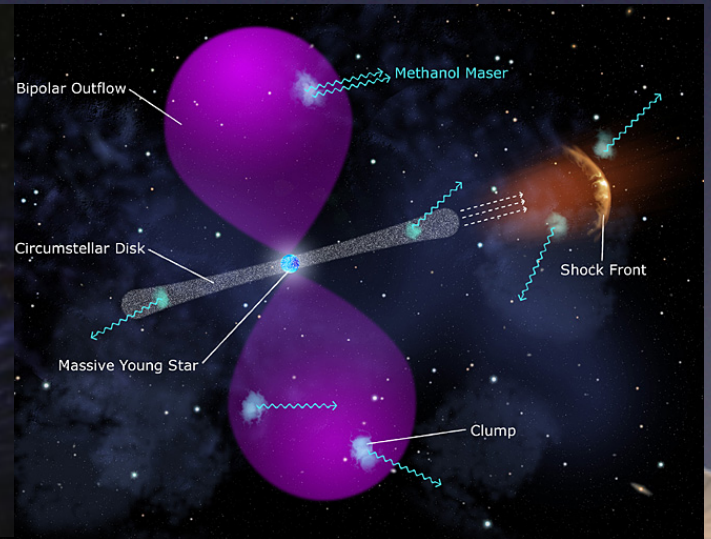
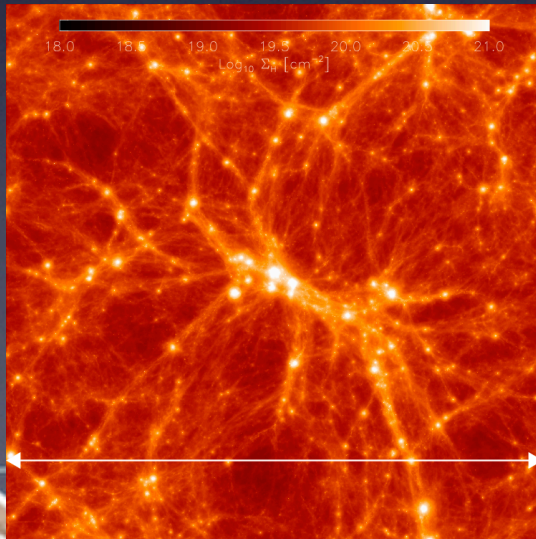
- ★ Management (Quinn)
- ★ Science (Staveley-Smith)
- ★ Information & Communications Technology (Quinn)
- ★ Engineering (Hall)
- ★ MRO Support (Tingay)
- ★ Education, Training and Outreach





Science Program

- ★ Galaxy Assembly and Evolution
- ★ Variable Universe
- ★ High Angular Resolution astronomy





ICT Projects



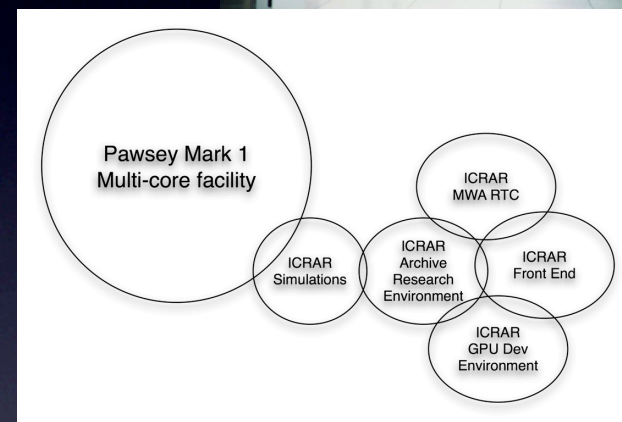
★ Andreas Wicenec (ESO) arrives in July to head ICRAR Data Intensive Research Theme - expert in design and development of archive systems (ESO, ALMA, eVLA, VO).

★ Pawsey Centre participation:

★ Phase 1a: 100TFlop Murdoch multicore tender announced this week; 30% radio astronomy.

★ Phase 1b: Data Intensive Research Pathfinder.

★ Phase 2: Petascale machine (\$20M building + \$40m machine).



OpenCL





MRO Projects

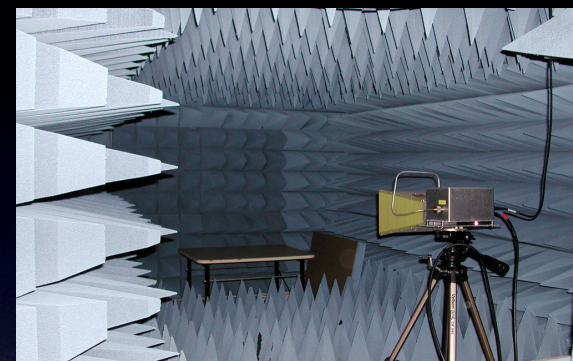
- ★ MWA project passes first major milestone, completion of 32 antenna prototype array
- ★ \$7.67m of NCRIS and EIF funds allocated to Curtin for further construction of the MWA
- ★ VLBI fringes between ASKAP01, ATNF and New Zealand Patriot 12 m antennas.





Engineering Projects

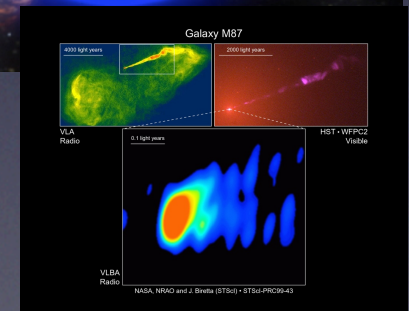
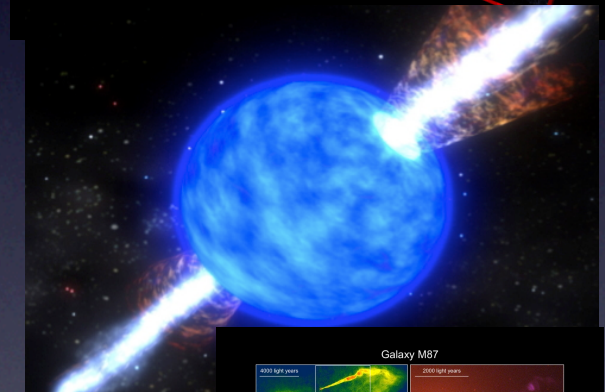
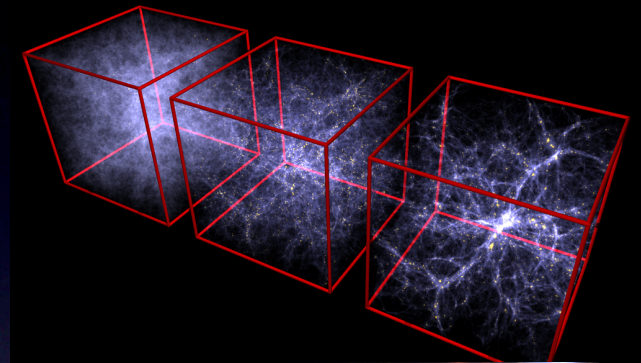
- ★ Radio Astronomy Engineering Lab @ Curtin
- ★ Aperture Array Verification Program participation.
- ★ Fast transient hardware design.
- ★ VLBI hardware





Education Program

- ★ Vacation Student Program - 11 students in Dec-Feb ICRAR/iVEC/Nvidia
- ★ 20 postgraduate students
- ★ ICRAR postgraduate day on April 30
- ★ Joint ICRAR UWA/Curtin Honours course in advanced radio astronomy and astrophysics
- ★ New UWA major in Astronomy and Astrophysics.





E&O Projects



- ★ Science Awareness in Kalgoorlie (1500 students)
- ★ ICRAR eNewsletter launched in March
- ★ ICRAR on facebook/twitter
- ★ COSMOS advertising
- ★ Stories of Australian Astronomy 2010
- ★ The ICRAR Observatory





Spice/ICRAR internet observatory

Before the March
22 Perth storm



After the March
22 Perth storm

Paul Luckas





Visitors & Meetings

- ICRAR visitor program (recent long-term visitors: Phil Diamond, D J Saikia, Max Pettini)
- Oct 18-20 2010: eVLBI workshop (Perth)
- Nov 2010: UCT/ICRAR/ASTRON workshop (Perth - tentative)
- 14-18 June 2011: HI workshop w.MPE (Kloster Seeon, Germany)

