VUV14 Program - Monday 19 July

8.30-9.00 — **Opening Session** — Chair: S. Suga — **Hall A**

Official opening by The Hon. Warren Entsch MP, representing the Australian Minister for Science

9.00-10.30 — **Plenary Session 1** — Chair: F. Larkins — **Hall A**

9.00 **M-Pl-1** **D. Charalambidis** (Plenary) *The attosecond-science frontiers: metrology and potential applications*

9.45 **M-Pl-2** **B. Sonntag** (Plenary) *Inner-shell photoionization with a VUV free-electron-laser*

10.30-11.00 — **Morning Tea and Exhibition** — **Halls C/D**

11.00-12.30 — **Poster Session 1** — **Halls C/D**

12.30-14.00 — **Lunch**

14.00-15.30

Solids / Surfaces 1 — Chair: K. Prince — **Hall A**

14.00 **M-I-1A** **E. Shirley** (Invited) *Toward quantitatively describing multipole, multiplet and correlation effects in VUV spectra*

14.30 **M-O-1A** **M. Agåker** *Resonant inelastic soft X-ray scattering at hollow lithium states in solids*

14.45 **M-O-2A** **S. Fujimori** *High-energy photoemission study on uranium compounds*

15.00 **M-I-2A** **C. Masciovecchio** (Invited) *Inelastic UV Scattering: a new tool to investigate collective excitations in condensed matter physics*

Imaging — Chair: R. Garrett — **Rooms 1/2**

14.00 **M-I-1P** **K. Nugent** (Invited) *Phase retrieval from coherent soft x-ray optics*

14.30 **M-I-2P** **I. McNulty** (Invited) *X-ray microscopy at the Advanced Photon Source*

15.00 **M-O-1P** **C. Jacobsen** *X-ray imaging without lenses: diffraction imaging at Stony Brook and the ALS*

15.15 **M-O-2P** **E. di Fabrizio** *Phase and intensity control through diffractive optical elements in x-ray microscopy*

15.30-16.00 — **Afternoon Tea and Exhibition** — **Halls C/D**

16.00-17.30

Microscopy — Chair: S. Heun — **Hall A**

16.00 **M-I-3A** **C. Larabell** (Invited) *X-ray tomography: Biological cells in 3-D at better than 50 nm resolution*

16.30 **M-I-4A** **M. Lerotic** (Invited) *Cluster analysis in soft X-ray spectromicroscopy: finding the patterns in complex specimens*

17.00 **M-I-5A** **M. Kiskinova** (Invited) *Spectroscopic identification and imaging of surface processes occurring at microscopic and mesoscopic scales*

Alternative Sources — Chair: K. Baldwin — **Rooms 1/2**

16.00 **M-I-3P** **A. Klisnick** (Invited) *Picosecond XUV lasers for users: current achievements and future LASERIX facility at LIXAM*

16.30 **M-I-4P** **K. Eikema** (Invited) *Frequency-comb metrology in the VUV*

17.00 **M-O-3P** **D. Neshev** *High-order harmonic generation yielding tunable extreme-ultraviolet radiation of high spectral purity*

17.15 **M-O-4P** **G. O'Sullivan** *Recent progress in source development for EUV lithography*

17.30-18.30 — **Poster Session 1 (continued)** — **Halls C/D**

17.30-19.00 — **Welcome Reception** (To be held in conjunction with Poster Session 1) — **Halls C/D**

VUV14 Program – Tuesday 20 July

8.30-9.20 — Australian Synchrotron Session — Hall A

Chair: M. Ridgway

8.30 **F. Larkins** *Australian Synchrotron - The National Science Case*
8.50 **J. Boldeman** *Australian Synchrotron - The Machine*
9.05 **R. Garrett** *Australian Synchrotron - The Beamlines*

9.30-10.30

Sources Mini-Symposium — Hall A

Chair: J. West

9.30 **W. Eberhardt** *The BESSY Soft X-ray FEL*
9.45 **E. Gluskin** *Developments in the FEL programme at the Advanced Photon Source*
10.00 **W. Flavell** *4GLS, the UK's 4th Generation Light Source*
10.15 **T. Gerber** *Temporally resolved experiments with synchrotron and fs-laser radiation at SLS*

Ions — Rooms 1/2

Chair: U. Becker

9.30 **Tu-I-1P F. Wuilleumier** (Invited) *Photoionization of excited atoms and ions: recent progress and future prospects*
10.00 **Tu-O-1P N. Berrah** *Inner-shell dynamic studies in negative ions*
10.15 **Tu-O-2P C. Latimer** *Anion spectroscopy of core photoexcited bromo-chloro-alkanes*

10.30-11.00 — Morning Tea and Exhibition — Halls C/D

11.00-12.30

Sources Symposium (cont.) — Hall A

Chair: J. West

11.00 **N. Smith** *Coming of age at the Advanced Light Source*
11.15 **T. Hara** *SPring-8 compact SASE source (SCSS)*
11.30 **P. Morin** *The new French light source SOLEIL*
11.45 **K. Prince** *The ELETTRA FEL and plans for FERMI*
12.00 **R. Cavell** *The Canadian Light Source - from a dream to first light*
12.15 General Discussion

Magnetism 1 — Rooms 1/2

Chair: C. Fadley

11.00 **Tu-I-2P S. Kevan** (Invited) *Coherent soft x-ray magnetic scattering*
11.30 **Tu-I-3P L. Braicovich** (Invited) *Dichroism in resonant inelastic soft X-ray scattering*
12.00 **Tu-O-3P S. Eisebitt** *Magnetic imaging by dichroic x-ray holography*
12.15 **Tu-O-4P C. Schneider** *Imaging magnetization dynamics in microstructures by picosecond-XPEEM*

12.30-14.00 — Lunch

(and IAB Board Meeting at Cairns International Hotel Boardroom)

14.00-15.30

Magnetism 2 — Hall A

Chair: T. Ishii

14.00 **Tu-I-1A E. Arenholz** (Invited) *Vectormagnetometry studies of exchange biased systems using soft x-ray magnetic dichroism*
14.30 **Tu-O-1A A. Kimura** *Surface magnetic property of c(2x2) CuMn/Cu(001) 2-dimensional ordered surface alloy: Probed by soft x-ray magnetic circular dichroism*
14.45 **Tu-O-2A E. Weschke** *Resonant magnetic soft x-ray scattering at the lanthanide M_5 edges*
15.00 **Tu-I-2A K. Amemiya** (Invited) *Direct observation of surface and interface magnetism with the depth-resolved X-ray magnetic circular dichroism technique*

Soft Matter — Rooms 1/2

Chair: K. Seki

14.00 **Tu-I-4P Y. Luo** (Invited) *Local electronic and geometrical structures of hydrogen-bonded complexes studied by soft X-ray spectroscopy*
14.30 **Tu-O-5P Y. Cai** *X-ray Raman scattering of oxygen in high-pressure low-temperature H_2O*
14.45 **Tu-O-6P K. Nakagawa** *Natural circular dichroism of amino acid films observed in soft X-ray and VUV region using polarizing undulator*
15.00 **Tu-O-7P A. Soldatov** *Electronic structure of human hemoglobin: ultrasoft X-ray emission study*
15.15 **Tu-O-8P J. Moore** *High sensitivity detection of desorbed biomolecules by photoionization with tunable VUV*

15.30-16.00	Afternoon Tea and Exhibition	Halls C/D

16.00-17.30	Correlated Materials 1 Chair: A. Kotani	Hall A	Clusters Chair: H. Schmoranzer	Rooms 1/2
	16.00 **Tu-I-3A C.-T. Chen** (Invited) *Soft x-ray investigation of strongly correlated electron systems*		16.00 **Tu-I-5P A. Rubens de Castro** (Invited) *Non-linear phenomena in atoms and clusters induced by intense VUV radiation from a Free Electron Laser*	
	16.30 **Tu-I-4A S. Shin** (Invited) *Ultrahigh-resolution photoemission spectroscopy of superconductors using a VUV laser*		16.30 **Tu-O-9P J. Bozek** *Spin resolved inner-shell photoelectron spectroscopy of Xe clusters*	
	17.00 **Tu-O-3A K. Okada** *Large-cluster-model calculation of O 1s XAS for $Y_{2-x}Ca_xBaNiO_5$*		16.45 **Tu-O-10P A. De Fanis** *Photoelectron-photoion-photoion coincidence imaging in Ar dimer*	
	17.15 **Tu-O-4A H. Komoda** *Direct observation of superconducting gap in YB_6 by ultrahigh-resolution photoemission spectroscopy*		17.00 **Tu-I-6P M. Neeb** (Invited) *Time-resolved photoelectron spectroscopy on small metal cluster anions using fs laser pulses*	

17.30-18.00	Break

18.00-19.00	Public Lecture	Hall A
	18.00 **J. Seymour** *Australia, the land of things that bite, sting and kill! Is it really that bad?*	

VUV14 Program – Wednesday 21 July

8.20-9.35 — **Plenary Session 2** — Chair: K. Codling — **Hall A**

8.20 **W-Pl-1** **R. Dörner** (Plenary) *Electrons from fixed- in-space molecules and clusters*

9.05 **W-I-1A** **J. Ajello** (Invited) *A journey through the solar system in the ultraviolet*

9.40-10.40

Solids / Surfaces 2 — Chair: I. Lindau — **Hall A**

9.40 **W-I-2A** **J. Larsson** (Invited) *Combining laser and synchrotron radiation in time-resolved experiments*

10.10 **W-O-1A** **P. Heimann** *Ultrafast x-ray absorption spectroscopy of laser-excited materials*

10.25 **W-O-2A** **G. Paolicelli** *Bulk Sensitive Photoemission: first results of VOLPE project at ESRF*

Atmospheres — Chair: G. de Souza — **Rooms 1/2**

9.40 **W-I-1P** **R. Meier** (Invited) *VUV diagnostic spectroscopy at the edge of space*

10.10 **W-I-2P** **T. Slanger** (Invited) *Observation of 10.5-13.5 eV OI Rydberg states in the terrestrial ionospheric nightglow: the new role of large telescopes in atmospheric studies*

10.40-11.00 — **Morning Tea and Exhibition** — **Halls C/D**

11.00-12.30 — **Poster Session 2** — **Halls C/D**

12.30-14.00 — **Lunch**

14.00-15.30

Magnetism 3 — Chair: W. Eberhardt — **Hall A**

14.00 **W-I-3A** **A. Fujimori** (Invited) *Photoemission and MCD study of magnetic semiconductors for spintronics*

14.30 **W-O-3A** **T. Takeuchi** *Soft x-ray spectroscopy of diluted magnetic semiconductor $Ga_{1-x}M_xN$ (M = Cr, Mn)*

14.45 **W-O-4A** **O. Rader** Which Mn is ferromagnetic in $Ga_{1-x}Mn_xAs$?

15.00 **W-I-4A** **N. Mannella** (Invited) Electron localization, polarons and clustered states in manganites

Photodissociation — Chair: K. Mitsuke — **Rooms 1/2**

14.00 **W-I-3P** **W. Ubachs** (Invited) *High resolution molecular physics studies using a laser-based tunable XUV source at 10^7 resolving power*

14.30 **W-O-1P** **H. Lefebvre-Brion** *The 'cathedral' in the near-threshold absorption spectrum of N_2*

14.45 **W-O-2P** **C.R. Wu** *EUV photolysis of molecular ice systems of astronomical interest*

15.00 **W-O-3P** **K. Kavanagh** *Probing colliding calcium plasmas with emission and VUV absorption imaging*

15.15 **W-O-4P** **P. Cosby** *Dissociative recombination of vibrationally-excited oxygen molecular ions*

15.30-16.00 — **Afternoon Tea and Exhibition** — **Halls C/D**

16.00-17.30

Correlated Materials 2 — Chair: A. Moewes — **Hall A**

16.00 **W-I-5A** **W. Flavell** (Invited) *Resonant photoemission of transition metal perovskites - from GMR to catalysts*

16.30 **W-O-5A** **A. Sekiyama** *Bulk electronic state of high Tc cuprate $La_{2-x}Sr_xCuO_4$ observed by high-energy angle-resolved photoemission spectroscopy*

16.45 **W-O-6A** **A. Chikamatsu** *In-situ angle-resolved photoemission study on $La_{1-x}Sr_xMnO_3$ thin films grown by Laser MBE*

17.00 **W-O-7A** **S. Imada** *Ferromagnetic metal to spin-glass insulator transition in pyrochlore-type molybdates $R_2Mo_2O_7$ studied with photoemission and XMCD*

17.15 **W-O-8A** **H. Dürr** *Fs electron and spin dynamics in ferromagnetic films and nanostructures*

Dynamics — Chair: K. Ueda — **Rooms 1/2**

16.00 **W-I-4P** **M. Drescher** (Invited) *Atomic dynamics with attosecond VUV pulses*

16.30 **W-I-5P** **C. Miron** (Invited) *Femto-second dynamics probed by resonant photoemission and coincidence techniques*

17.00 **W-I-6P** **K. Yamanouchi** (Invited) *Ultrafast dynamics of molecules in the vacuum ultraviolet wavelength region: ultrashort pulsed excitation vs. monochromatic excitation*

17.30-18.30 — **Poster Session 2 (continued)** — **Halls C/D**

19.00-23.00 — **Conference Banquet – Cairns International Hotel**

VUV14 Program – Thursday 22 July

8.20-9.35 — **Plenary Session 3** — Chair: N. Smith — **Hall A**

8.20 **Th-Pl-1** **J.C. Campuzano** (Plen) *What angle-resolved photoelectron spectroscopy tells us about high-temperature superconductors*

9.05 **Th-I-1A** **M. Martin** (Invited) *Synchrotron infrared science: Physics, biology, environmental science and coherence*

9.40-10.40

Solids / Surfaces 3 — Chair: E. Gluskin — **Hall A**

9.40 **Th-I-2A** **F. Parmigiani** (Inv.) *Non-linear photoemission processes and electron dynamics at solid surfaces*

10.10 **Th-O-1A** **S. Hatta** *Charge-density wave transition on In/Cu(001)*

10.25 **Th-O-2A** **E. Rotenberg** *Spin density wave phase diagram of Cr(110) Thin Films*

Photoionization 1 — Chair: H. Schmidt-Böcking — **Rooms 1/2**

9.40 **Th-I-1P** **J. Eland** (Invited) *Studies of double photoionization using a fast pulsed VUV source*

10.10 **Th-I-2P** **K. Taylor** (Invited) *Multiphoton double ionization of atoms and molecules by FEL VUV light*

10.40-11.00 — **Morning Tea and Exhibition** — **Halls C/D**

11.00-12.30 — **Poster Session 3** — **Halls C/D**

12.30-14.00 — **Lunch**

14.00-15.30

Nanostructures — Chair: X. Zhang — **Hall A**

14.00 **Th-I-3A** **W. Wurth** (Invited) *Soft X-ray spectroscopy of deposited transition metal atoms and clusters*

14.30 **Th-O-3A** **T. van Buuren** *X-ray absorption and emission studies of diamond nanoparticles*

14.45 **Th-O-4A** **T. Schmitt** *Local and non-local effects in resonant inelastic X-ray scattering of $Na_2V_3O_7$ nanotubes*

15.00 **Th-O-5A** **T.-K. Sham** Studies of nanostructures using time-resolved x-ray excited optical luminescence

15.15 **Th-O-6A** **L. Petaccia** Electronic structure of single-walled carbon nanotubes and interaction with atoms and gases studied via synchrotron radiation spectroscopy

Photoionization 2 — Chair: L. Avaldi — **Rooms 1/2**

14.00 **Th-I-3P** **N. Saito** (Invited) *Dynamics of core-ionization and excitation of molecules probed by multiple coincidence momentum imaging spectroscopy*

14.30 **Th-I-4P** **F. Penent** (Invited) *Coincidence Auger spectroscopy*

15.00 **Th-I-5P** **N. Cherepkov** (Invited) *Complete experiments in photoionization of atoms and molecules*

15.30-16.00 — **Afternoon Tea and Exhibition** — **Halls C/D**

16.00-17.30

Solids / Surfaces 4 — Chair: S.-J. Oh — **Hall A**

16.00 **Th-I-4A** **P. Soukiassian** (Invited) *Atomic scale nanochemistry in Silicon Carbide oxidation and H-induced surface metallization*

16.30 **Th-O-7A** **A. Tadich** *Mapping disorder-order induced changes to the Fermi surface of Cu3Au*

16.45 **Th-O-8A** **R. Woolley** *Does an encapsulated atom 'feel' the effects of adsorption?*

17.00 **Th-O-9A** **T. Okuda** *Scanning tunneling microscope combined with synchrotron-radiation for elemental analysis*

17.15 **Th-O-10A** **M. Tsunekawa** *Soft x-ray photoemission study of quasi-two-dimensional organic conductors BEDT-TTF and BEDO-TTF salts*

Photoionization 3 — Chair: M.-N. Piancastelli — **Rooms 1/2**

16.00 **Th-O-1P** **E. Kukk** *VUV-induced processes in alkali halide dimer molecules -- how well does the ionic approach work?*

16.15 **Th-O-2P** **D. Rolles** *Probing the degree of core hole localization in isotope substituted N_2 via photoelectron spectroscopy*

16.30 **Th-I-6P** **N. Kosugi** (Invited) *Valence in the Rydberg / continuum region: theory and experiment of molecular inner-shell spectroscopy.*

17.00 **Th-O-3P** **M. Meyer** *Resonant and non-resonant two-photon ionization of atoms*

17.15 **Th-O-4P** **J.-I. Adachi** *Vibrationally resolved C 1s photoelectron angular distributions from fixed-in-space CO molecules: Mechanism of the shape-resonance-induced non-Franck-Condon effects*

17.30-18.30 — **Poster Session 3 (continued)** — **Halls C/D**

VUV14 Program – Friday 23 July

8.20-9.35	Solids / Surfaces 5 Chair: R. Leckey	Hall A	Photoexcitation Chair: J.-E. Rubensson	Rooms 1/2
	8.20 **F-I-1A E. Lundgren** (Invited) *The oxidation of some late transition metals: from UHV to ambient oxygen partial pressures*		8.20 **F-I-1P P. Hammond** (Invited) *Highly excited states: new experimental windows in photoexcitation*	
	8.50 **F-I-2A H.-W. Yeom** (Invited) *Electronic transitions of atomic wires on silicon surfaces*		8.50 **F-I-2P Y. Azuma** (Invited) *Double photoexcitation of helium in a strong dc electric field*	
	9.20 **F-O-1A K. Sakamoto** *Electronic structures of Ca induced one-dimensional reconstructions on a Si(111) surface*		9.20 **F-O-1P T. Softley** *Controlling the motion of hydrogen molecules*	

9.45-10.30	Plenary Session 4 Chair: A. Yagishita	Hall A
	9.45 **F-PI-1 A. Hitchcock** (Plenary) *Soft X-ray spectromicroscopy of biological and synthetic polymer systems*	

10.30-11.00	Closing Session	Hall A

11.00-17.30	Optional Conference Half-Day Excursions

9.45-17.15	Saturday 24 July Optional Conference Full-Day Excursion (Reef Trip)