

# Workshop Program

Achievements and New Directions in Subatomic Physics: Workshop in Honour of Tony Thomas' 60th Birthday

15 – 19 February 2010. CSSM, Adelaide, South Australia

|        | MON 15 <sup>th</sup> Feb       | TUE 16 <sup>th</sup> Feb             | WED 17 <sup>th</sup> Feb                   | THU 18 <sup>th</sup> Feb         | FRI 19 <sup>th</sup> Feb           |  |
|--------|--------------------------------|--------------------------------------|--|----------------------------------|------------------------------------|--|
| 08:30  | REGISTRATION<br>(Seminar Room) |                                      |  |                                  |                                    |  |
| 08:45  | WELCOME                        |                                      |  |                                  |                                    |  |
| CHAIR: | W. Weise                       | J. Speth                             | C. Allton                                  | R. Holt                          | C. Roberts                         |  |
| 09:00  | I. Afnan<br>(Flinders)         | J.-C. Peng<br>(Illinois)             | G. Miller<br>(Washington)                  |                                  | J. Speth<br>(Juelich)              |  |
| 09:30  | D. Geesaman<br>(ANL)           | A. Signal<br>(Massey)                | P. Guichon<br>(Saclay)                     | R. Carlini<br>(Jefferson Lab)    | M. Bartolozzi<br>(Boronia Capital) |  |
| 10:00  | D. Leinweber<br>(Adelaide)     | T. Londergan<br>(Indiana)            | J. Zanotti<br>(Edinburgh)                  | W. van Oers<br>(Manitoba/TRIUMF) | S. Lawley<br>(Uranex)              |  |
| 10:30  | COFFEE                         | COFFEE<br>(Poster Session)           | COFFEE                                     | COFFEE<br>(Group Photo)          | COFFEE                             |  |
| 11:00  | S. Krewald<br>(Juelich)        | R. Holt<br>(ANL)                     | H. Matevosyan<br>(Adelaide)                | V. Flambaum<br>(New South Wales) | J. Carroll<br>(Adelaide)           |  |
| 11:30  | P. Tandy<br>(Kent State)       | W. Melnitchouk<br>(Jefferson Lab)    | G. Schierholz<br>(DESY)                    | S. Gardner<br>(Kentucky)         | K. Tsushima<br>(Jefferson Lab)     |  |
| 12:00  | B. Blankleider<br>(Flinders)   | I. Cloet<br>(Washington)             | R. Young<br>(Adelaide)                     | B. McKellar<br>(Melbourne)       | A. Kizilersu<br>(Adelaide)         |  |
| 12:30  | LUNCH                          | LUNCH                                | LUNCH<br>(Seminar Room)                    | LUNCH                            | LUNCH                              |  |
| CHAIR: | P. Guichon                     | D. Geesaman                          | EXCURSION<br>(McLaren Vale<br>wine region) | J. Miller                        | A. Williams                        |  |
| 14:00  | C. Roberts<br>(ANL)            | W. Weise<br>(TU Munich)              |  | G. Krein<br>(UNESP)              | D. Phillips<br>(Ohio)              |  |
| 14:30  | G. Chanfray<br>(Lyon)          | Z.-E. Mezziani<br>(Temple)           |  | C. Allton<br>(Swansea)           | W. Detmold<br>(William & Mary)     |  |
| 15:00  | G. Dunne<br>(Connecticut)      | M. Burkardt<br>(New Mexico State)    |  | A. Sibirtsev<br>(Bonn)           | H. O'Connell<br>(Fermilab)         |  |
| 15:30  | COFFEE                         | COFFEE                               |  | COFFEE                           | CLOSE                              |  |
| 16:00  | F. Myhrer<br>(South Carolina)  | W. Bentz<br>(Tokai)                  |  | K. Maltman<br>(York)             |                                    |  |
| 16:30  | W. Kamleh<br>(Adelaide)        | A. Szczepaniak<br>(Indiana)          |  | F. Steffens<br>(Mackenzie)       |                                    |  |
| 17:00  |                                | A. Schreiber<br>(Adelaide)           |  | J. Zhang<br>(Zhejiang)           |                                    |  |
| 17:30  | RECEPTION<br>(The Griffins)    |                                      |  | BANQUET<br>(Woodstock Winery)    |                                    |  |
| 18:00  |                                | ARC INTERNATIONAL<br>LINKAGE MEETING |  |                                  |                                    |  |

All coffee breaks will be held in the Physics Seminar Room, First Floor Physics Building (Room 121)

All lectures will be held at the Kerr Grant Lecture Theatre

To locate a particular title, please see the program and click on a speaker's name

Alternatively, select the name from the following list to jump to that speaker's details:

|                             |                            |                             |                             |
|-----------------------------|----------------------------|-----------------------------|-----------------------------|
| <a href="#">Afnan</a>       | <a href="#">Geesaman</a>   | <a href="#">Melnitchouk</a> | <a href="#">Steffens</a>    |
| <a href="#">Allton</a>      | <a href="#">Gersten</a>    | <a href="#">Meziani</a>     | <a href="#">Szczepaniak</a> |
| <a href="#">Bartolozzi</a>  | <a href="#">Guichon</a>    | <a href="#">Miller</a>      | <a href="#">Tandy</a>       |
| <a href="#">Bentz</a>       | <a href="#">Holt</a>       | <a href="#">Myhrer</a>      | <a href="#">Tsushima</a>    |
| <a href="#">Blankleider</a> | <a href="#">Kamleh</a>     | <a href="#">O'Connell</a>   | <a href="#">van Oers</a>    |
| <a href="#">Burkhardt</a>   | <a href="#">Kizilersu</a>  | <a href="#">Peng</a>        | <a href="#">Weise</a>       |
| <a href="#">Carlini</a>     | <a href="#">Krein</a>      | <a href="#">Phillips</a>    | <a href="#">Young</a>       |
| <a href="#">Carroll</a>     | <a href="#">Krewald</a>    | <a href="#">Rafelski</a>    | <a href="#">Zanotti</a>     |
| <a href="#">Chanfray</a>    | <a href="#">Lawley</a>     | <a href="#">Roberts</a>     | <a href="#">Zhang</a>       |
| <a href="#">Cloet</a>       | <a href="#">Leinweber</a>  | <a href="#">Schierholz</a>  |                             |
| <a href="#">Detmold</a>     | <a href="#">Londergan</a>  | <a href="#">Schreiber</a>   |                             |
| <a href="#">Dunne</a>       | <a href="#">Maltman</a>    | <a href="#">Sibirtsev</a>   |                             |
| <a href="#">Flambaum</a>    | <a href="#">Matevosyan</a> | <a href="#">Signal</a>      |                             |
| <a href="#">Gardner</a>     | <a href="#">McKellar</a>   | <a href="#">Speth</a>       |                             |

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*I. Afnan (Flinders)*

Title: "The electric dipole moment of light nuclei"

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*D. Geesaman (ANL)*

Title: "The old man and the sea"

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*D. Leinweber (Adelaide)*

Title: "Lattice and chiral effective field theory"

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*S. Krewald (Juelich)*

Title: "Meson-baryon dynamics as a tool for baryon resonance analysis"

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*D. Phillips (Ohio)*

Title: "A new extraction of the isoscalar  $\pi$ -N scattering length  $a^+$  from pionic deuterium data"

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*B. Blankleider (Flinders)*

Title: "Electromagnetic currents of the pion-nucleon system"

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*C. Roberts (ANL)*

Title: "Empirically charting dynamical chiral symmetry breaking"

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*G. Chanfray (Lyon)*

Title: "Scalar response of the nucleon, chiral symmetry and nuclear matter properties"

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*G. Dunne (Connecticut)*

Title: "Crystalline condensates in the chiral symmetry breaking phase diagram"

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*F. Myhrer (South Carolina)*

Title: "Effective field theory and electro-weak processes"

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*W. Detmold (William & Mary)*

Title: "Many-hadron systems in lattice QCD"

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*J.-C. Peng (Illinois)*

Title: "Partonic substructure of nucleons and nuclei with dimuon production"

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*A. Signal (Massey)*

Title: "Strangeness in the meson cloud model"

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*T. Londergan (Indiana)*

Title: "The NuTeV anomaly: solved?"

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*R. Holt (ANL)*

Title: "From the nucleus to the quarks"

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*W. Melnitchouk (Jefferson Lab)*

Title: "Nucleon structure at large x"

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*I. Cloet (Washington)*

Title: "The structure of an in-medium nucleon"

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*W. Weise (TU Munich)*

Title: "The spin of the nucleon - walking in Tony's footsteps"

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*Z.-E. Meziani (Temple)*

Title: "Valence nucleon structure functions and color forces"

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*M. Burkardt (New Mexico State)*

Title: "Transverse structure of hadrons"

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*W. Bentz (Tokai)*

Title: "The NJL-jet model for quark fragmentation functions"

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*A. Szczepaniak (Indiana)*

Title: "Nucleon structure as seen in DVCS"

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*A. Schreiber (Adelaide)*

Title: "The ultimate complex system: networks in molecular biology"

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*G. Miller (Washington)*

Title: "Travels with Tony"

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*P. Guichon (Saclay)*

Title: "Hadron properties from twisted mass lattice QCD"

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*J. Zanotti (Edinburgh)*

Title: "Lattice investigation of nucleon structure at light quark masses"

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*H. Matevosyan (Adelaide)*

Title: "Extrapolating lattice calculated nucleon form factors"

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*G. Schierholz (DESY)*

Title: "QCD light"

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*R. Young (Adelaide)*

Title: "The role of strange quarks in nucleon structure"

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*R. Carlini (Jefferson Lab)*

Title: "A search for new physics via the proton weak-charge measurement"

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*S. Gardner (Kentucky)*

Title: "Flavor physics, CP violation, and the search for physics beyond the standard model"

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*W. van Oers (Manitoba/TRIUMF)*

Title: "Electroweak tests of the standard model: an 11 GeV Moller experiment at Jefferson Laboratory"

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*V. Flambaum (New South Wales)*

Title: "Variation of fundamental constants from Big Bang to atomic clocks and QCD calculations"

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*K. Maltman (York)*

Title: "Recent progress on high-precision determinations of  $\alpha_s$  from the lattice and tau decays"

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*B. McKellar (Melbourne)*

Title: "Fermions, scalars and dark energy"

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*G. Krein (UNESP)*

Title: "Charmed matter"

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*C. Allton (Swansea)*

Title: "Charmonium melting in the quark-gluon phase of QCD"

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*A. Sibirtsev (Bonn)*

Title: "Charmonium dissociation in matter: perspectives from CERN to JLab"

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*F. Steffens (Mackenzie)*

Title: "Thermodynamics of quasi-particles in a quark-gluon plasma"

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*J. Zhang (Zhejiang)*

Title: "Glueballs at finite temperature"

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*S. Lawley (Uranex)*

Title: "Living on a radioactive planet: the pros and cons"

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*J. Speth (Juelich)*

Title: "Coherent Structures in Nuclei and Financial Markets"

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*M. Bartolozzi (Boronia Capital)*

Title: "The Microscopic Structure of Financial Markets: a brief introduction for physicists"

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*J. Rafelski (Arizona) (\*)*

Title: "Quarks in the Vacuum"

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*P. Tandy (Kent State)*

Title: "Soft and hard scale QCD dynamics in mesons"

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*J. Carroll (Adelaide)*

Title: "QMC and the nature of dense matter: Written in the stars?"

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*K. Tsushima (Jefferson Lab)*

Title: "Photoproduction of hypernuclei in the quark-meson coupling model"

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*W. Kamleh (Adelaide)*

Title: "Wave function of the nucleon"

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*A. Gersten (Ben Gurion) (\*)*

Title: "The missing quantum states of confined potentials and their relevance to the bag model"

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*H. O'Connell (Fermilab)*

Title: "A Tony Thomas inspired guide to INSPIRE"

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*A. Kizilersu (Adelaide)*

Title: "Full nonperturbative analysis of unquenched QED"

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