



DREB2012 PROGRAMME



MONDAY (26 March) - Aula Magna Auditorium

08h30 *Registration desk open*

09h15 *Session 1 [CHAIR: B Jonson - Chalmers]*

Welcome (10') : Prof. Paolo Rossi (Dean of the Faculty of SMFN)

Prof. Giovanni Batignan (Director INFN-Pisa)

Keynote Opening Talks - "Open Questions and Perspectives in DREB Physics"

Theory: *Andrea Vitturi (30'+5')*

Experiment: *Wilton Catford (30'+5')*

10h40 *Coffee break (20')*

11h00 *Session 2 [CHAIR: David Brink - Oxford]*

Ab initio calculations of light-ion reactions – Petr Navratil

Interior and Exterior Contributions to Transfer Cross Sections – Ian Thompson

Microscopic calculation of the ${}^3\text{He}(\alpha,\gamma){}^7\text{Be}$ reaction rate – Thomas Neff

Overlap integrals, spectroscopic factors and asymptotic normalization coefficients for one-nucleon transfer reactions – Natalia Timofeyuk

12h40 *Lunch (1h30')*

14h10 *Session 3 [CHAIR: Pierre Descouvemont - Brussels]*

Elastic and inelastic proton scattering of ${}^{21}\text{Na}$ beam in inverse kinematics – David Jenkins

Indirect studies of astrophysical reaction rates - a study of the ${}^{18}\text{Ne}(\alpha,p){}^{21}\text{Na}$ reaction using the TIGRESS and SHARC detector – Christian Diget

New Results with TECSA - the $d({}^{26}\text{Al}^m,p){}^{27}\text{Al}$ experiment – Brian Roeder

Measurement of Gamow-Teller transitions from ${}^{56}\text{Ni}$ – Masaki Sasano

15h50 *Coffee break (20')*

16h10 *Session 4 [CHAIR: Livius Trache – Texas A&M]*

First Measurement with Trojan Horse Mechanism using a Radioactive Ion Beam –
Marisa Gulino

LUNA: Laboratory for Underground Nuclear Astrophysics – *Davide Trezzi*

Low-energy d+d fusion reactions via the Trojan Horse Method – *Aurora Tumino*

17h25 *End*

17h30 Buses to VIRGO

Tour of VIRGO and Reception

20h30 (approx) Return to Pisa

TUESDAY (27 March) - Aula Magna Auditorium

09h00 *Session 5 [CHAIR: Edoardo Lanza - Catania]*

Fingerprints of core polarization in two-nucleon transfer reactions of halo nuclei –
Ricardo Broglia

Multi-nucleon transfers using two-neutron halo ${}^6\text{He}$ on ${}^{12}\text{C}$ at 30 MeV using the
SHARC and TIGRESS arrays at TRIUMF ISAC-II – *Frederic Sarazin*

Nuclear response to two-neutron transfer via the (${}^{18}\text{O}, {}^{16}\text{O}$) reaction – *Diana Carbone*

Study of the neutron rich nuclei via heavy-ion double charge exchange reaction –
Hiroaki Matsubara

10h40 *Coffee break (20')*

11h00 *Session 6 [CHAIR: Angelo Cunsolo - LNS-Catania]*

Electron Scattering: Hofstadter's experiment for short-lived nuclei – *Toshimi Suda*

Direct Reactions and Decay Spectroscopy using the MSU High Resolution Array – *Jenny Lee*

Reactions on light neutron rich nuclei with CHIMERA detector at LNS – *Giuseppe Cardella*

Experiments with a Double Solenoid System – *Rubens Lichtenthaler*

Digital Signal Processing for Physics Applications – *Matteo Angarano [CAEN] (15+5')*

13h00 ***Poster Session and Sandwich Lunch (1h30')***

13h30 Meeting of Advisory Committee and Chairs – discussion of bids and decision on hosting of DREB2014 (1h00)

Free afternoon or informal discussion sessions

14h30 Informal Instrumentation Discussion Session (14h30 – 17h00) - INFN seminar room 131

Convenors: *Lolly Pollacco, Alexandre Obertelli*

[MODERATOR: Lolly Pollacco - Saclay]

14h30 Informal Reaction Theory Discussion Session (14h30 – 17h00) - INFN seminar room 250

Convenors: *Antonio Moro, Raquel Crespo, Pierre Capel*

[MODERATOR: Michele Viviani - Pisa]

Free evening

WEDNESDAY (28 March) - Aula Magna Auditorium

09h00 *Session 7* [CHAIR: *Thomas Aumann - GSI*]

Structure of the unbound systems ^{10}Li and ^{13}Be – *Giacomo Randisi*

First observation of ground state di-neutron decay: ^{16}Be – *Artemis Spyrou*

Evidence for the ground-state resonance of ^{26}O – *Zachary Kohley*

Multi-neutron detection, reaction mechanism and the quest for ^7H – *Haik Simon*

10h40 *Coffee break (20')*

11h00 *Session 8* [CHAIR: *Dave Morrissey – Michigan State*]

Angular-momentum content of momentum profile in a neutron knockout from ^{14}Be – *Leonid Chulkov*

Nuclear Breakup of ^{17}Ne and its Two-Proton Halo Structure – *Felix Wamers*

Shell evolution in neutron-rich Al isotopes around N=20 – *Chiara Nociforo*

Exclusive measurements of (p,pX) neutron and proton knockout reactions on ^{57}Ni – *Alina Movsesyan*

12h40 *Lunch (1h30')*

14h10 *Session 9* [CHAIR: *Daniel Baye - Brussels*]

Investigations of the excitation of the core and the halo of ^{11}Li – *Rituparna Kanungo*

Unbound states of the drip-line nucleus ^{24}O from (p,p') scattering – *Simon Boissinot*

Measurement of the Giant Monopole and Quadrupole Resonances in ^{68}Ni using the Maya Active Target – *Marine Vanebrouck*

Experimental results on the Coulomb excitation of exotic nuclei at the R3B-LAND setup –
Dominic Rossi

15h50 *Coffee break (20')*

16h10 *Session 10 [CHAIR: Giacomo de Angelis - Legnaro]*

Dynamical limits of nucleon knockout at intermediate energy – *Freddy Flavigny*

Correlations in direct two-proton knockout and details of the reaction mechanism –
Katerin Wimmer

Eikonal reaction theory for one- and two-neutron removal reaction – *Kosho Minomo*

Study of ^{16}C by neutron knockout – *Jongwon Hwang*

17h50 *End*

20h00 **Workshop Dinner** at “Santa Caterina”, including the announcement of the hosts of DREB2014

THURSDAY (29 March) - Aula Magna Auditorium

09h00 *Session 11 [CHAIR: Yorick Blumenfeld - CERN]*

Study of ^{10}He by the $^{11}\text{Li}(d, ^3\text{He})$ transfer reaction – *Adrien Matta*

Studies of neutron rich Beryllium isotopes using transfer reactions – *Jacob Johansen*

Neutron sd-shell excitations for light nuclei with $N \geq 8$ – *Alan Wuosmaa*

Transfer reactions into the Island of Inversion – *Vinzenz Bildstein*

10h40 *Coffee break (20')*

11h00 *Session 12 [CHAIR: Claudio Spitaleri – LNS-Catania]*

Evolution of the shell structure in medium mass nuclei: search for the neutron $2d_{5/2}$ orbital
in ^{69}Ni – *Mohamad Moukaddam*

Proton-Neutron interaction around $N=40$ studied at ISOLDE– *Dennis Muecher*

Test of the asymmetry of reduction factors with one nucleon transfer reaction on ^{14}O –
Alain Gillibert

Asymptotic normalization coefficients of mirror states in ^{21}Al – *Beatriz Fernandez-Dominguez*

12h40 *Lunch (1h30')*

14h10 Session 13 [CHAIR: *Dimitra Pierroutsakou - Naples*]

Structure and reactions of three-body exotic nuclei using discretization methods –
Manuela Rodriguez-Gallardo

Analysis of breakup channel for the $^{11}\text{Li}+^{208}\text{Pb}$ reaction at energies around the Coulomb barrier – *Juan Pablo Fernandez-Garcia*

Exploring the coupling to nucleon transfer in fusion involving neutron-rich Sn nuclei at energies near the Coulomb barrier – *Felix Liang*

Fusion reactions and neutron transfer in collisions induced by Li isotopes on Sn targets –
Maria Fisichella

15h50 *Coffee break (20')*

16h10 Session 14 [CHAIR: *Nigel Orr - Caen*]

Coulomb Excitation of ^8Li on a ^{197}Au Target – *Marlete Assuncao*

Scattering of ^8He on ^{208}Pb at energies around the Coulomb barrier – *Gloria Marquinez-Duran*

17h00 Keynote Summary Talk – “Perspectives and Reflections on the Workshop”

Dave Morrissey (25+10')

Closing of Workshop (5')

17h40 ***End of Workshop***

NOTES

- All formal sessions to be held in the “Aula Magna” Auditorium, Faculty of Mathematical, Physical and Natural Sciences, University of Pisa.
- Poster session with sandwich lunch Tuesday – posters to be setup throughout the duration of the workshop in areas adjacent to that used for coffee breaks.
- *Informal* instrumentation and theory discussion sessions to be held, for those interested, in INFN seminar/meeting rooms (#131 and #250) – Tuesday afternoon following lunch+poster session.
- **49** contributed talks – 20' presentation + 5' questions.
- **Website:** <http://dreb2012.df.unipi.it/Dreb/WELCOME.html>

LIST OF CONTRIBUTED TALKS

Investigations of the excitation of the core and the halo of ^{11}Li	KANUNGO, Rituparna
Ab initio calculations of light-ion reactions	NAVRATIL, Petr
Interior and Exterior Contributions to Transfer Cross Sections	THOMPSON, Ian
Study of ^{10}He by the $^{11}\text{Li}(d, ^3\text{He})$ transfer reaction	MATTA, Adrien
First observation of ground state di-neutron decay: ^{16}Be	SPYROU, Artemis
Unbound states of the drip-line nucleus ^{24}O from (p,p') scattering	BOISSINOT, Simon
Correlations in direct two-proton knockout and details of the reaction mechanism	WIMMER, Kathrin
Dynamical limits of nucleon knockout at intermediate energy.	FLAVIGNY, Freddy
Nuclear Breakup of ^{17}Ne and its Two-Proton Halo Structure	WAMERS, Felix
Transfer reactions into the Island of Inversion	BILDSTEIN, Vinzenz
Overlap integrals, spectroscopic factors and asymptotic normalization coefficients for one-nucleon transfer reactions.	TIMOFEYUK, Natalia
Electron Scattering - Hofstadter's experiment for short-lived nuclei -	SUDA, Toshimi
Structure of the unbound systems $^{10,12}\text{Li}$ and ^{13}Be	RANDISI, Giacomo
Elastic and inelastic proton scattering of ^{21}Na beam in inverse kinematics	JENKINS, David
Indirect studies of astrophysical reaction rates - a study of the $^{18}\text{Ne}(\alpha,p)^{21}\text{Na}$ reaction using the TIGRESS and SHARC detector systems	DIGET, Christian

Measurement of the Giant Monopole and Quadrupole Resonances in ^{68}Ni using the Maya Active Target	VANDEBROUCK, Marine
Direct Reactions and Decay Spectroscopy using the MSU High Resolution Array	LEE, Jenny
Test of the asymmetry of reduction factors with one nucleon transfer reaction on ^{14}O	Gillibert, Alain
Asymptotic normalization coefficients of mirror states in ^{21}Al	FERNANDEZ-DOMINGUEZ, Beatriz
Evidence for the ground-state resonance of ^{26}O	KOHLEY, Zachary
Neutron sd-shell excitations for light nuclei with $N \geq 8$	WUOSMAA, Alan
Fingerprints of core polarization in two-nucleon transfer reactions of halo nuclei	BROGLIA, Ricardo
Structure and reactions of three-body exotic nuclei using discretization methods	RODRIGUEZ-GALLARDO, Manuela
Experimental results on the Coulomb excitation of exotic nuclei at the R3B-LAND setup	ROSSI, Dominic
Study of ^{16}C by neutron knockout reaction	HWANG, Jongwon
Multi-neutron detection, reaction mechanism and the quest for ^7H	SIMON, Haik
Study of the neutron rich nuclei via heavy-ion double charge exchange reaction	MATSUBARA, Hiroaki
Scattering of ^8He on ^{208}Pb at energies around the Coulomb barrier	MARQUINEZ-DURAN, Gloria
Measurement of Gamow-Teller transitions from ^{56}Ni	SASANO, Masaki
Proton-Neutron interaction around $N=40$ studied at ISOLDE	MUECHER, Dennis
Angular-momentum content of momentum profile in a neutron knockout from ^{14}Be .	CHULKOV, Leonid
Studies of neutron rich Beryllium isotopes using transfer reactions.	JOHANSEN, Jacob
Evolution of the shell structure in medium mass nuclei: search for the neutron $2d_{5/2}$ orbital in ^{69}Ni	MOUKADDAM, Mohamad
Eikonal reaction theory for one- and two-neutron removal reaction	MINOMO, Kosho

Multi-nucleon transfers using two-neutron halo ^6He on ^{12}C at 30 MeV using the SHARC and TIGRESS arrays at TRIUMF ISAC-II	SARAZIN, Frederic
FIRST MEASUREMENT WITH TROJAN HORSE METHOD USING RADIOACTIVE ION BEAM	GULINO, Marisa
Exploring the coupling to nucleon transfer in fusion involving neutron-rich Sn nuclei at energies near the Coulomb barrier	LIANG, Felix
Analysis of breakup channel for the $^{11}\text{Li}+^{208}\text{Pb}$ reaction at energies around the Coulomb barrier.	FERNANDEZ-GARCIA, Juan Pablo
Shell evolution in neutron-rich Al isotopes around $N=20$	NOCIFORO, Chiara
Fusion reactions and neutron transfer in collisions induced by Li isotopes on Sn targets	FISICHELLA, Maria
Reactions on light neutron rich nuclei with CHIMERA detector at LNS	CARDELLA, Giuseppe
Experiments with a Double Solenoid System	LICHTENTHALER, Rubens
New Results with TECSA - the $d(^{26}\text{Al},p)^{27}\text{Al}$ experiment	ROEDER, Brian
Nuclear response to two-neutron transfer via the $(^{18}\text{O},^{16}\text{O})$ reaction	CARBONE, Diana
Microscopic calculation of the $^3\text{He}(\alpha,\gamma)^7\text{Be}$ reaction rate	NEFF, Thomas
LUNA: Laboratory for Underground Nuclear Astrophysics	TREZZI, Davide
Coulomb Excitation of ^8Li on a ^{197}Au Target	ASSUNCAO, Marlete
Exclusive measurements of (p,pX) neutron and proton knockout reactions on ^{57}Ni	MOVSESYAN, Alina
Low-energy $d+d$ fusion reactions via the Trojan Horse Method	TUMINO, Aurora