

## CAWONAPS PROGRAM

**Thursday 9<sup>th</sup> December**

9:00	Welcome	Nigel Lockyer
9:05	Introduction	Lothar Buchmann
	<i>Facilities and associated experiments</i>	
9:15	DRAGON and TUDA nuclear astrophysics facilities	Chris Ruiz
9:35	TIGRESS-SHARC and 8pi facilities	Adam Garnsworthy
9:55	Neutron-deficient mass measurements with TITAN	Stephan Ettanauer
10:15	TBA	Kumar Sharma
<b>10:35</b>	<b>Coffee (15 minutes)</b>	
	<i>Observational/Theoretical astrophysics</i>	
10:50	Neutron Star masses	Ingrid Stairs
11:15	Positron production by pulsars and magnetars	Jeremy Heyl
11:40	Nuclear physics in type I X-ray bursts	Andrew Cumming
<b>12:05</b>	<b>Lunch (1 hour)</b>	
	<i>Modeling, sensitivity studies</i>	
13:05	NuGrid and MESA – a framework for numerical experiments in nuclear astrophysics	Falk Herwig
13:30	3D numerical simulations of thermohaline mixing in low-mass red giants	Pavel Denisenkov
13:55	Nucleosynthesis simulations with the NuGrid PPN code	Athira Menon
14:10	Sensitivity studies of x-ray bursts and classical novae	Anuj Parikh
<b>14:35</b>	<b>Coffee (20 minutes)</b>	
	<i>R-Matrix, theory, politics</i>	
14:55	Azure R-Matrix code	Dick Azuma
15:20	Ab initio calculations of radiative capture	Peter Navratil
15:45	The Joint Institute for Nuclear Astrophysics	Michael Wiescher
<b>16:10</b>	<b>Discussion</b>	
<b>18:00</b>	<b>Pub Dinner at Mahoney's Irish Pub – UBC Campus</b>	

## Friday 10<sup>th</sup> December

### *Nuclear Reactions of Astrophysical importance*

9:00	Low energy reaction theory: the forsaken realm	Lothar Buchmann
9:25	The $^{15}\text{O}(\alpha,\gamma)^{19}\text{Ne}$ reaction	Barry Davids
9:50	The $^3\text{He}(\alpha,\gamma)^7\text{Be}$ reaction	Sky Sjue
10:10	Absolute resonance strength measurements of the $^{22}\text{Na}(\text{p},\gamma)$ reaction	Chris Wrede

### **10:35 Coffee (20 minutes)**

### *Nuclear Reactions (cont)*

10:55	$^{14}\text{N}(\text{p},\gamma)$ via $^{15}\text{O}$ state lifetimes	Naomi Galinski
11:15	$^{33}\text{S}(\text{p},\gamma)$	Jennifer Fallis
11:35	A study of the $^{30}\text{P}(\text{p},\gamma)^{31}\text{S}$ reaction via the $^{32}\text{S}(\text{d},\text{t})^{31}\text{S}$ reaction and its astrophysical relevance	Dan Irvine
11:55	The structure of $^{30}\text{S}$ and the $^{29}\text{P}(\text{p},\gamma)^{30}\text{S}$ reaction rate	Kiana Setoodehnia

### **12:15 Lunch (1 hour)**

### *Quark-Novae*

13:15	Distinct photometric and chemical evidence of the Quark-Nova in SN2006gy	Matthew Kostka
13:35	Numerical simulations of the explosive transition from hadronic to strange quark matter	Brian Niebergal
13:55	Trends in $^{44}\text{Ti}$ and Calcium in (dual-shock) Quark-Novae	Rachid Ouyed
14:15	Java-based r-process code: applications to SNe and QNe	Nico Koning

### **14:30 Coffee (15 minutes)**

### **14:45 Tour of TRIUMF (Buchmann, Davids, Ruiz)**

### *Summary Session and discussion*

16:00	Summary of the Workshop	Alan Shotton
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### **16:20 Discussion**