

# 2<sup>nd</sup> Workshop on Level Density and Gamma Strength

Oslo, May 11-15, 2009

Workshop program as of May 07, 2009.

## Program Overview:

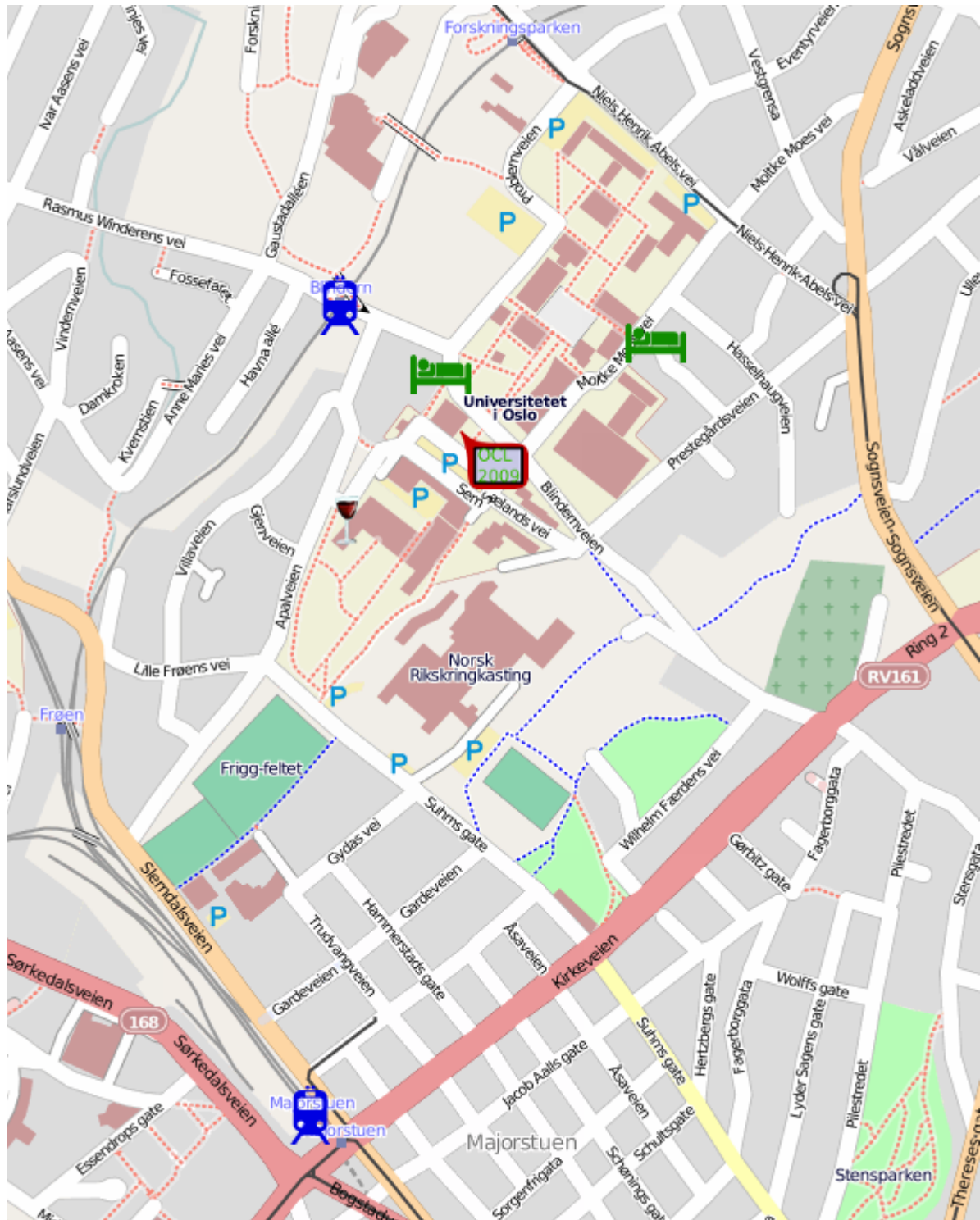
Before the start of the workshop, there will be a reception on Sunday, May 10, from 18:00—21:00 in room VU55 of the chemistry building (see page 3). You will also be able to register during the reception.

The workshop will be in Helga Engs building, see page 2/3.

Monday	Tuesday	Wednesday	Thursday	Friday
08:30 Registration	08:30 Coffee	08:30 Coffee	08:30 Coffee	08:30 Coffee
Chair <i>S. Siem</i>	Chair <i>L. Bernstein</i>	Chair <i>A. Lopez-Martens</i>	Chair <i>A. Görgen</i>	Chair <i>S. Harissopulos</i>
09:00 Welcome	09:00 R. Firestone	09:00 S. Åberg	09:00 S. Marrone	09:00 J. Escher
09:10 D. Brink	09:40 R. Schwengner	09:40 S. Leoni	09:40 F. Gunsing	09:40 B.L. Goldblum
09:50 A. Bürger	10:20 K. Sonnabend	10:20 T.L. Khoo	10:20 S. Hilaire	10:20 M. Wiedeking
10:20 S. Goriely				
11:00 Coffee	11:00 Coffee	11:00 Coffee	11:00 Coffee	11:00 Coffee
Chair <i>T.L. Khoo</i>	Chair <i>S. Frauendorf</i>	Chair <i>Y. Alhassid</i>	Chair <i>M. Hjorth-Jensen</i>	Chair <i>M. Guttormsen</i>
11:30 H. Utsunomiya	11:30 Y. Alhassid	11:30 S. Frauendorf	11:30 S. Harissopulos	11:30 L. Bernstein
12:10 A. Voinov	12:10 H. Nakada	12:10 V. Zelevinsky	12:10 H.T. Nyhus	12:10 S. Grimes
		12:50 K. Mazurek	12:50 H.K. Toft	12:50 Conclusions
12:50 Lunch	12:50 Lunch	13:20 Lunch	13:20 Lunch	13:20 Lunch
Chair <i>S. Åberg</i>	Chair <i>G.E. Mitchell</i>		Chair <i>M. Krtička</i>	
14:00 G.E. Mitchell	14:00 J.M. Gomez	14:30 Excursion to Bygdøy: * Fram Museum * Viking ship	14:30 N. Lo Iudice	
14:40 M. Krtička	14:40 J. Endres		15:10 O. Wieland	
15:20 J. Wilson	15:20 A. Tonchev		15:50 Coffee	
16:00 Coffee	16:00 Coffee		Chair <i>R. Firestone</i>	
Chair <i>A. Voinov</i>			16:20 V. Plujko	
16:30 R. Capote	16:30 Discussion “Strength functions”		16:50 B. Zhuravlev	
17:10 A. Ignatyuk		18:00	17:10 Discussion “Level densities”	
18:00 Pizza at OCL		18:30 Conference Dinner		
21:00 17:40–21:00		23:00		

## Overview of the university area

Please also see the web page where we have built an interactive [map](#) showing many places of interest for the workshop.



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## Workshop Program

Workshop program as of May 07, 2009:

### Sunday, May 10, 2009:

#### Evening Program

18:00—21:00 Reception

Wine and cheese will be served in room VU55 in the chemistry building. You will be able to register during the reception. The location is marked with  on the map:



(all maps from [www.openstreetmap.org](http://www.openstreetmap.org))

## **Monday, May 11, 2009:**

08:30—09:00 Registration and Coffee

### **1<sup>st</sup> Session, chair: S. Siem**

09:00—09:10 Welcome

09:10—09:50 David Brink

*The Brink hypothesis 54 years later*

09:50—10:20 Alexander Bürger

*Level Densities and  $\gamma$ Strength Functions in Light Sc and Ti Isotopes*

10:20—11:00 Stephane Goriely

*Level densities and gamma strengths for astrophysics applications*

11:00—11:30 Coffee

### **2<sup>nd</sup> Session, chair: T.L. Khoo**

11:30—12:10 Hiroaki Utsunomiya

*Pigmy E1 and giant M1 resonances in nucleosynthesis of heavy elements*

12:10—12:50 Alexander Voinov

*Level Densities and  $\gamma$ -strength functions from compound nuclear reactions*

12:50—14:00 Lunch

### **3<sup>rd</sup> Session, chair: S. Åberg**

14:00—14:40 Gary E. Mitchell

*Neutron capture experiments with DANCE*

14:40—15:20 Milan Krtička

*The two-step cascade method*

15:20—16:00 Jonathan Wilson

*Nuclear data for reactor physics: Cross sections and level densities in the actinide region*

16:00—16:30 Coffee

### **4<sup>th</sup> Session, chair: A. Voinov**

16:30—17:10 Roberto Capote

*Micro-canonical level densities of U-234*

17:10—17:40 Anatoly Ignatyuk

*Neutron resonance densities and neutron strength functions for RIPL-3*

## **Evening Program**

18:00—21:00 Pizza at the Oclo Cyclotron Laboratory

We offer to guide you to the laboratory after the end of the session.

## **Tuesday, May 12, 2009:**

08:30—09:00 Coffee

### **1<sup>st</sup> Session, chair: L. Bernstein**

09:00—09:40 Richard Firestone

*The Influence of Nuclear Structure on Statistical Decay Properties*

09:40—10:20 Ronald Schwengner

*Enhanced dipole strength below particle threshold*

10:20—11:00 Kerstin Sonnabend

*Experiments with photon-induced reactions*

11:00—11:30 Coffee

### **2<sup>nd</sup> Session, chair: S. Frauendorf**

11:30—12:10 Yoram Alhassid

*Level densities of rare-earth nuclei in the shell model Monte Carlo approach*

12:10—12:50 Hitoshi Nakada

*Spin- and isospin-projected nuclear level densities in the shell model Monte Carlo methods*

12:50—14:00 Lunch

### **3<sup>rd</sup> Session, chair: G.E. Mitchell**

14:00—14:40 Jose M. Gomez

*Recent results in quantum chaos and its applications to nuclei and particles*

14:40—15:20 Janis Endres

*Systematic Studies of the Pygmy Dipole Resonance by means of the  $(a, a'\gamma)$  reaction*

15:20—16:00 Anton Tonchev

*Study of the Nuclear Dipole Response using the Monoenergetic and Polarized Gamma Beams at HIGS*

16:00—16:30 Coffee

### **4<sup>th</sup> Session**

16:30—17:40 Discussion “Strength functions”

Discussion leader: S. Siem

## Wednesday, May 13, 2009:

08:30—09:00 Coffee

### **1<sup>st</sup> Session, chair: A. Lopez-Martens**

09:00—09:40 Sven Åberg

*Combinatorial Nuclear Level Density Model*

09:40—10:20 Silvia Leoni

*Warm superdeformed nuclei: probes of nuclear structure and tunneling processes at the onset of chaos*

10:20—11:00 Teng Lek Khoo

*Structure information from excited nuclear states*

11:00—11:30 Coffee

### **2<sup>nd</sup> Session, chair: Y. Alhassid**

11:30—12:10 Stefan Frauendorf

*Instantaneous-shape sampling for calculating the electromagnetic dipole strength in transitional nuclei*

12:10—12:50 Vladimir Zelevinsky

*Chaos, Thermalization and Statistical Features of Complex Nuclei*

12:50—13:20 Katarzyna Mazurek

*Single Particle Level Density in Tetrahedral and Octahedral Nuclear Shapes*

13:20—14:15 Lunch

### **Afternoon Program**

Visit of Bygdøy Museums: we offer to guide you from the workshop location to the museums. We suggest to take the tram to Nasjonaltheatret, walk to the harbour, and to take the boat to Bygdøy (2<sup>nd</sup> stop) where the museums and the restaurant for the conference dinner are located (see the [map](#) on the web page). Please pay attention to the announcements during the workshop. We have arranged for a guided tour through the Fram Museum (right on the map) at 15:30. After that, we suggest to proceed to the Viking Ship Museum (left).

### **Evening Program**

18:30—23:00 Conference Dinner

We start with a welcome drink at 18:30 at the restaurant “[Lanternen](#)” on Bygdøy (see the [map](#) on the web page). The address is: Huk Aveny 2.



## Thursday, May 14, 2009:

08:30—09:00 Coffee

### **1<sup>st</sup> Session, chair: A. G3rgen**

09:00—09:40 Stefano Marrone

*Nuclear Level Density and Photon Strength Function Measurements at n\_TOF*

09:40—10:20 Frank Gunsing

*Level densities from neutron resonance parameters in evaluated nuclear data libraries*

10:20—11:00 Stephane Hilaire

*Combinatorial level densities for practical applications*

11:00—11:30 Coffee

### **2<sup>nd</sup> Session, chair: M. Hjorth-Jensen**

11:30—12:10 Sotirios Harissopoulos

*Optical Model Potentials and Nuclear Level Densities for the nucleosynthetic p-process: an experimentalist's point of view*

12:10—12:50 Hilde T. Nyhus

*Level densities and  $\gamma$  strength functions in  $^{163,164}\text{Dy}$*

12:50—13:20 Heidi K. Toft

*Level Densities and  $\gamma$ -Ray Strength Functions in  $^{116,118,119}\text{Sn}$*

13:20—14:30 Lunch

### **3<sup>rd</sup> Session, chair: M. Kr $\text{t}\text{i}\check{\text{c}}\text{k}\text{a}$**

14:40—15:10 Nicola Lo Iudice

*Role of Multiphonon Configurations on Nuclear Spectra and Giant Resonances*

15:10—15:50 Olivier Wieland

*The Gamma Decay of the GDR Under Extreme Conditions*

15:50—16:20 Coffee

### **4<sup>th</sup> Session, chair: R. Firestone**

16:20—16:50 Vladimir Plujko

*Closed-form E1 Radiative Strength Functions for Gamma-Decay and Photoabsorption*

16:50—17:20 Boris Zhuravlev

*Nuclear level densities of  $^{208}\text{Bi}$  and  $^{209}\text{Po}$  from neutron spectra in (p,n) reaction on nuclei of  $^{208}\text{Pb}$  and  $^{209}\text{Bi}$*

17:20—18:20 Discussion “Level densities”

Discussion leader: M. Guttormsen

## **Friday, May 15, 2009:**

08:30—09:00 Coffee

### **1<sup>st</sup> Session, chair: S. Harissopulos**

09:00—09:40 Jutta Escher

*Cross sections for neutron capture and other compound reactions from Surrogate measurements*

09:40—10:20 Bethany Lyles Goldblum

*Surrogate Ratio Methodology for the Indirect Determination of  $(n, \gamma)$  Cross Sections*

10:20—11:00 Mathis Wiedeking

*Measuring lifetimes in the quasi-continuum*

11:00—11:30 Coffee

### **2<sup>nd</sup> Session, chair: M. Guttormsen**

11:30—12:10 Lee Bernstein

*Reactions on Nuclei in High Energy Density Plasmas*

12:10—12:50 Steve Grimes

*Nuclear Level Densities*

12:50—13:10 Andreas Zilges

*Conclusions*

13:20—14:30 Lunch

## **End of Workshop**