

INT Workshop INT-17-69W

Neutron-Antineutron Oscillations: Appearance, Disappearance, and Baryogenesis October 23 - 27, 2017

Organizers:

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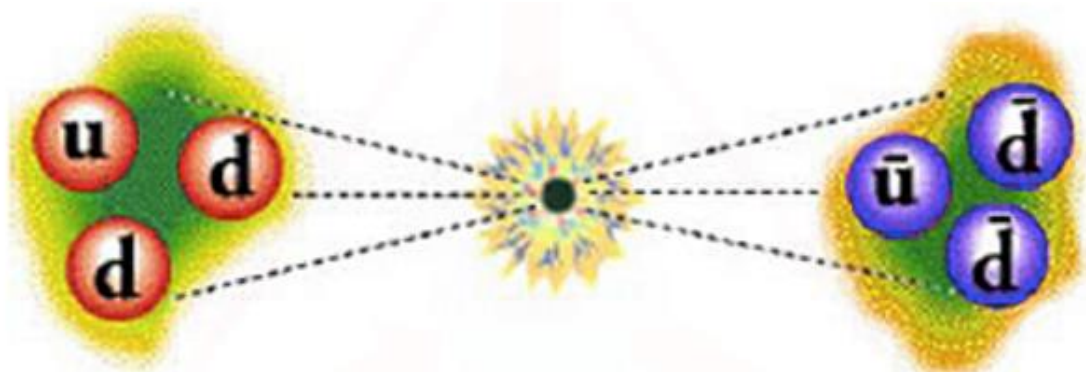
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Welcome to Workshop and thank you for coming.



<http://www.int.washington.edu/PROGRAMS/17-69W/schedule.html>

- All presentations should be **strictly** 30 min including ~ 5 min discussion.
- Please, make your presentations available to organizers for posting at INT website.

On Tuesday Oct 24 Lunch will be shorter 1:15 (on other days 1:30)

Plan is to join CENPA seminar

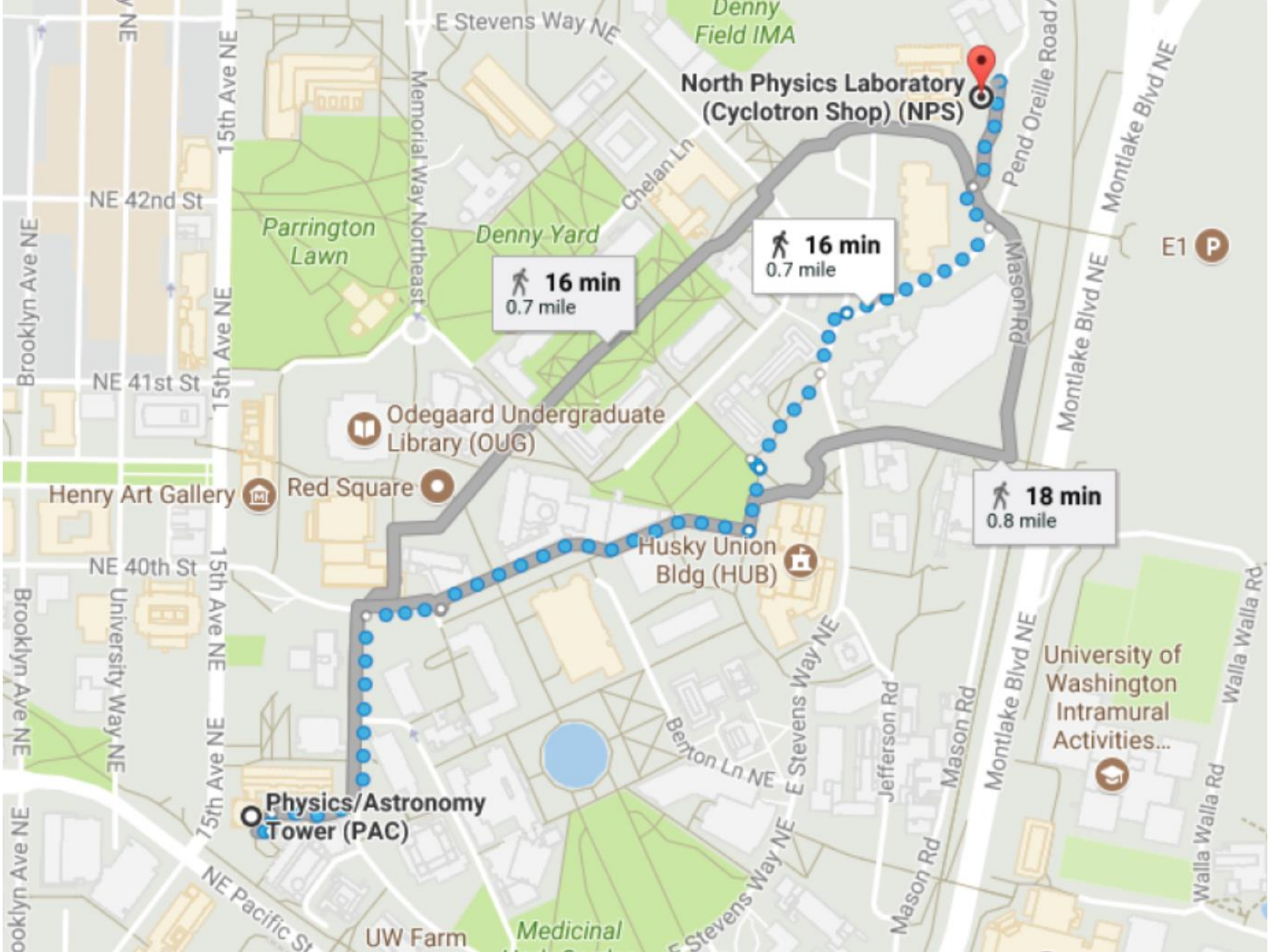
Center for Experimental Nuclear Physics and Astrophysics

by G. Pignol about nEDM experiment at PSI

Seminar will start at 15:45 in NPL room 178.

Tuesday October 24, 2017 Day 2

09:00	-	09:30	Z. Berezhiani	Concepts of Mirror Matter (MM). What is wrong with DM=MM?
09:30	-	10:00	A. Dolgov	What MM=DM can't explain in cosmology?
10:00	-	10:30	Pierluigi Belli	Dark Matter direct detection
10:30	-	11:00	Coffee Break	Informal discussions
11:00	-	11:30	Y. Kamyshev	n - n' Oscillations as a Portal to Mirror World
11:30	-	12:00	A. Nelson	Baryogenesis from BNV at the weak scale
12:00	-	12:30	Z. Berezhiani	Co-baryogenesis of ordinary and mirror matter
12:30	-	13:45	Shorter Lunch!	Informal discussions
13:45	-	14:15	D. Milstead	BNV at LHC. Free $n\bar{n}$ search at ESS
14:15	-	14:45	K. Kirch	Previous and future $n\bar{n}'$ searches at ILL/PSI
14:45	-	15:15	L. Broussard	New search for mirror neutrons at HFIR/ORNL
15:15	-	15:30	Walk to CENPA	Maps will be provided (it is 0.7 mi or about 16 min walk)
15:30	-	15:45	Coffee Break	Take your coffee from INT. At CENPA coffee will be also provided
15:45	-	17:00	G. Pignol	CENPA seminar (room NPL 178): nEDM experiment at PSI
17:15	-	17:45	A. Young	Overview of the future UCN sources
17:45	-	18:30	Discussion	Organized Discussions: Experimental search for $n \leftrightarrow n'$



**North Physics Laboratory
(Cyclotron Shop) (NPS)**

16 min
0.7 mile

16 min
0.7 mile

18 min
0.8 mile

Parrington
Lawn

Denny Yard

Denny
Field IMA

Odegaard Undergraduate
Library (OUG)

Red Square

Henry Art Gallery

Husky Union
Bldg (HUB)

Physics/Astronomy
Tower (PAC)

University of
Washington
Intramural
Activities...

E1 P

Map labels include streets: Brooklyn Ave NE, 15th Ave NE, NE 42nd St, NE 41st St, NE 40th St, University Way NE, NE Pacific St, E Stevens Way NE, Chelan Ln, Memorial Way Northeast, Benton Ln NE, Jefferson Rd, Mason Rd, Montlake Blvd NE, Pend Oreille Road, Walla Walla Rd, UW Farm, Medicinal, and University of Washington Intramural Activities... Other labels include Parrington Lawn, Denny Yard, Denny Field IMA, Odegaard Undergraduate Library (OUG), Red Square, Henry Art Gallery, Husky Union Bldg (HUB), Physics/Astronomy Tower (PAC), and University of Washington Intramural Activities... A parking sign 'E1 P' is also visible.

- **Informal discussions** during lunches and dinners (self organized) and coffee breaks (coffee provided through your conference fee; also available in the kitchen)
- **Organized discussions**: with topics identified by the Org. Committee at selected time slots. More topics of this kind can be proposed and inserted in the program.

Organized discussions conveners:

Tuesday	17:45	Experimental search for $n \leftrightarrow n'$	Kirch, Broussard
Wednesday	15:00	Discrete Symmetries	Vainshtein, Mohapatra
	16:00	\bar{n} for free neutrons	Mohapatra, Babu
	16:30	Connection of \bar{n} and n'	Mohapatra, Berezhiani
Thursday	16:00	\bar{n} in nuclei	Richard, Gudkov
	16:30	UCN and neutron lifetime	Chen-Yu Liu, Kamyshkov
	17:30	Technology and Simulations	Shimizu, Nesvizhevsky
Friday	12:00	n' phenomenology	Berezhiani, Dolgov
	14:30	Mirror Dark Matter	Dolgov, Belli
	15:30	Quantum Mechanics of osc.	Kerbikov, Vainshtein

Format of Organized discussions:

- Conveners will prepare initial discussion questions;
- All participants are welcome to propose questions for discussions;
- Questions addressed to everybody or to particular person(s)
- Any questions including simple and naïve should be asked;
- The questions, to whom it was addressed, and who is answering and/or contributing to discussion will be recorded by “discussion secretary” **Josh Barrow** <jbarrow3@vols.utk.edu>
- questions can be asked or emailed to conveners and secretary.
- Questions and answers will be organized then into arXiv publication with all participants as authors with short foreword by conveners.
- Final text will be circulated among all authors for 2-3 weeks.
- INT will be acknowledged