The Future of Neutrino Mass Measurements:
Terrestrial, Astrophysical, and Cosmological Measurements
in the Next Decade

February 8-11, 2010

Monday, February 8, 2010

8.00  registration in INT office, 4th floor

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>9.00</td>
<td>welcome</td>
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<tr>
<td>9.10</td>
<td>Kinematic measurements, R.G.H. Robertson</td>
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<tr>
<td>9.40</td>
<td>Neutrino mass from double beta decay experiments, J.F. Wilkerson</td>
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<tr>
<td>10.10</td>
<td>Theory of neutrino mass and of $\beta\beta$ nuclear matrix elements, P. Vogel</td>
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<tr>
<td>10.40</td>
<td>coffee break</td>
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<th>Time</th>
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<tbody>
<tr>
<td>11.00</td>
<td>Neutrino masses from oscillation experiments, C. White</td>
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<tr>
<td>11.30</td>
<td>Neutrino mass and core collapse supernovae. G. Fuller</td>
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<tr>
<td>12.00</td>
<td>Neutrino mass and weak lensing, S. Dodelson</td>
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<tr>
<td>12.30</td>
<td>lunch</td>
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<th>Time</th>
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<tbody>
<tr>
<td>2.00</td>
<td>Neutrino masses from CMB and large scale structure, Y. Wong</td>
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<tr>
<td>2.30</td>
<td>Lyman alpha forest, K. Abazajian</td>
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<td>3.00</td>
<td>Neutrino masses and cosmic simulations, M. Takada</td>
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<tr>
<td>3.30</td>
<td>Seeing Cosmic Neutrinos through CMB Lenses, B. Keating</td>
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<tr>
<td>3.50</td>
<td>Treatment of neutrino masses in the PDG, R. Miquel</td>
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<tr>
<td>4.10</td>
<td>coffee</td>
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<th>Time</th>
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<tbody>
<tr>
<td>4.30</td>
<td>WORKING GROUPS, room C520 + various other rooms</td>
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<tr>
<td></td>
<td>Q1 – direct measurements</td>
</tr>
<tr>
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<td>Q2 – double beta decay</td>
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<td>Q3 – astrophysics/cosmology</td>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>6.00</td>
<td>Reconvene working groups. Questions and discussion.</td>
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<td>6.30</td>
<td>end of session</td>
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</tbody>
</table>
Tuesday, February 9, 2010

PLENARY SESSION 5, room C520

9.00  Direct neutrino mass measurement with KATRIN, C. Weinheimer
9.30  Project-8: Status and prospects, B. Monreal
9.50  MARE: status and prospects, F. Gatti
10.10 Sensitivity of neutrino mass measurements with microcalorimeters, A. Nucciotti

10.30 coffee

PLENARY SESSION 6, room C520

11.00  MARE in Milan, E. Ferri
11.20  Double beta decay search with TeO$_2$ bolometers, A. Giuliani
11.40  Double beta decay searches with enriched and scintillating bolometers, S. Pirro
12.00  Sensitivity of bolometric double beta decay experiments, S. Sangiorgio

12.20 lunch

2.00  WORKING GROUPS, room C520 + various other rooms
Q1 – direct measurements
Q2 – double beta decay
Q3 – astrophysics/cosmology

4.00 coffee

PLENARY SESSION 7, room C520

4.30  Direct detection of relic neutrinos, J. Formaggio
4.50  Relic neutrino detection with torsion balances, B. Heckel
5.10  Experimental challenges towards the detection of relic neutrinos with unstable nuclei, M. Messina
5.30  Status and Prospects of EXO, J. Wodin
5.50  Prospects for double beta decay and neutrino mass studies with TPCs, D. Nygren
6.10  Experimental challenges for ton-scale Ge experiments, I. Abt

6.30 end of session
Wednesday, February 10, 2010

PLENARY SESSION 8, room C520
9.00  Neutrino masses from CMB observations, A. Cooray
9.20  Oscillation of SN neutrinos and neutrino masses, A. Friedland
9.40  Solar neutrinos and metals: What we might be able to do once precise mixing angles and precise nuclear rates are in hand, W. Haxton
10.00 Low-Q-value weak decays, J. Kopp

10.20  coffee

PLENARY SESSION 9, room C520
10.50  Report from working group Q1 – direct measurements
11.10  Report from working group Q2 – double beta decay
11.30  Report from working group Q3 – astrophysics/cosmology
12.00  Statistical Analysis of Future Neutrino Mass Experiments, W. Rodejohann
12.30  lunch

2.00  WORKING GROUPS, room C520 + various other rooms
     Q4 – model-dependencies and uncertainties
     Q5 – global analysis and unified constraints
4.00  coffee

PLENARY SESSION 10, room C520
4.30  Discussion with working groups:
     How can we address questions Q4 and Q5?
     Q4 – model-dependencies and uncertainties
     Q5 – global analysis and unified constraints
5.30  WORKING GROUPS, room C520 + various other rooms
     Q4 – model-dependencies and uncertainties
     Q5 – global analysis and unified constraints
6.30  end of session
Thursday, February 11, 2010

8.30 WORKING GROUPS, room C520 + various other rooms
Q4 – model-dependencies and uncertainties
Q5 – global analysis and unified constraints

PLENARY SESSION 11, room C520
9.30 Report from working group Q4 – model-dependencies and uncertainties
9.50 Report from working group Q5 – global analysis and unified constraints

10.15 coffee

PLENARY SESSION 12, room C520
10.30 discussion
11.30 white paper organization
12.00 concluding remarks

12.15 adjourn workshop
The Future of Neutrino Mass Measurements: Terrestrial, Astrophysical, and Cosmological Measurements in the Next Decade

February 8-11, 2010

Room Assignments for Working Groups

Monday, February 8, 2010

4.30 WORKING GROUPS
Q1 – direct measurements, room C521
Q2 – double beta decay, room C441
Q3 – astrophysics/cosmology, room C520

Tuesday, February 9, 2010

2.00 WORKING GROUPS
Q1 – direct measurements, room C521
Q2 – double beta decay, room C441
Q3 – astrophysics/cosmology, room C520

Wednesday, February 10, 2010

2.00 WORKING GROUPS
Q4 – model-dependencies and uncertainties, room C520
Q5 – global analysis and unified constraints, room C441

5.30 WORKING GROUPS
Q4 – model-dependencies and uncertainties, room C520
Q5 – global analysis and unified constraints, room C441

Thursday, February 11, 2010

8.30 WORKING GROUPS
Q4 – model-dependencies and uncertainties, room C520
Q5 – global analysis and unified constraints, room C441
Rooms Available During Workshop for Plenary and Working Group Sessions

C520, plenary room
   - entire workshop

C441, INT conference room
   - entire workshop

C521
   - Mon 2/8,  4.00-7.00pm
   - Tue 2/9,  1:30 - 4:30pm
   - Wed 2/10, 4.00-7.00pm

B405
   - Mon 2/8  4:15 - 6:15pm
   - Tue 2/9  1:45 - 4:15pm
   - Wed 2/10 4:15 - 6:45pm

C421, INT seminar room
   Mon 2/8  4:15 - 6:15pm

various INT offices (comfortably sit 3 people)