

# Workshop Agenda: Determination of the absolute electron (anti-)neutrino mass

ECT\*, Trento, March 26-30, 2018

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	Mon, 26 March	Tue, 27 March	Wed, 28 March	Thu, 29 March	Fri, 30 March
	Registration starting at 8:10				
9:00	<b>Welcome &amp; Introduction</b>	<b>Sources I: <math>^{163}\text{Ho}</math></b>	<b>Detectors</b>	<b>Molecular physics</b>	<b>White Paper Discussions</b>
	<b>Neutrino mass overview</b>	<b>H. Dorrer:</b> (25'+5') <i><math>^{163}\text{Ho}</math> production and purification</i>	<b>M. Wegner:</b> (25'+5') <i>Detectors for the ECHO experiment</i>	<b>(start at 9:15)</b>	
	<b>W. Rodejohann:</b> (40'+5') <i>Physics implications of neutrino mass</i>	<b>K. Wendt:</b> (25'+5') <i>Laser mass spectrometric separation and implantation of <math>^{163}\text{Ho}</math> for ECHO</i>	<b>S. Kempf:</b> (25'+5') <i>Microwave multiplexing readout for the ECHO experiment</i>	<b>D. Parno:</b> (40'+5') <i>TRIMS – Probing the molecular physics of tritium <math>\beta</math> decay</i>	<b>Collection of ideas &amp; group work</b>
	<b>C. Brofferio:</b> (35'+5') <i>Neutrinoless DBD and the effective neutrino mass</i>	<b>G. Gallucci:</b> (25'+5') <i>Enclosing of <math>^{163}\text{Ho}</math> in absorber of large TES arrays for the HOLMES experiment</i>	<b>E. Ferri:</b> (25'+5') <i>Detectors and microwave multiplexing for the HOLMES experiment</i>	<b>M. Klein:</b> (25'+5') <i>Challenges due to tritium ions from the KATRIN windowless gaseous tritium source</i>	
10:30	Coffee break				
11:00	<b><math>\nu</math> in astrophysics &amp; cosmology</b>	<b>Sources II: <math>^3\text{H}</math></b>	<b>Instruments &amp; Backgrounds</b>	<b>Analysis</b>	<b>White Paper Discussions</b>
	<b>S. Hannestad:</b> (40'+5') <i>Massive neutrinos in cosmology</i>	<b>M. Schlösser:</b> (25'+5') <i>Tritium technology for the KATRIN experiment</i>	<b>Th. Thümmler:</b> (25'+5') <i>Precision spectroscopy with the KATRIN spectrometer</i>	<b>J. Behrens:</b> (25'+5') <i>Neutrino mass analysis and modelling of the KATRIN experiment</i>	<b>Collection of ideas &amp; group work</b>
	<b>F. Vissani:</b> (40'+5') <i>Kinematic measurement of neutrino mass</i>	<b>P. C.-O. Ranitzsch:</b> (25'+5') <i>Precision electron sources for the KATRIN experiment</i>	<b>F. Fränkle:</b> (25'+5') <i>Backgrounds in the KATRIN experiment</i>	<b>M. Slezák:</b> (25'+5') <i>First spectroscopic meas. of conversion electrons using gaseous <math>^{83\text{m}}\text{Kr}</math> at KATRIN</i>	
		<b>A. Lindman:</b> (25'+5') <i>Atomic tritium and phase IV of Project 8</i>	<b>A. Ziegenbein:</b> (25'+5') <i>Backgrounds in <math>^{163}\text{Ho}</math>-based experiments</i>	<b>L. Saldana:</b> (25'+5') <i>Project 8 – Analysis techniques in energy spectrum reconstruction with CRES</i>	<b>Wrap-up</b>
12:30	Lunch break				
14:00	<b>Experiments overview I</b>	<b>Nuclear physics and spectral shapes</b>	<b>Reduction of systematics</b>	<b>Sterile neutrinos</b>	
	<b>G. Drexlin:</b> (40'+5') <i>The KATRIN experiment</i>	<b>F. Simkovic:</b> (40'+5') <i>Where neutrino physics meets nuclear physics</i>	<b>K. Koehler:</b> (40'+5') <i>Overview of multi-isotope cross validation for neutrino mass</i>	<b>C. Giunti:</b> (40'+5') <i>Short-baseline neutrino oscillation anomalies and reactor antineutrino fluxes</i>	
	<b>S. Böser:</b> (40'+5') <i>The Project 8 experiment</i>	<b>M. Haverkort:</b> (40'+5') <i>Ab initio calculation of the calorimetrically measured EC spectrum of <math>^{163}\text{Ho}</math></i>	<b>S. Eliseev:</b> (40'+5') <i>Direct Penning-trap determination of the Q-values of <math>^{163}\text{Ho}</math> and <math>^3\text{H}</math></i>	<b>S. Mertens:</b> (40'+5') <i>Sterile neutrinos in <math>\beta</math> decays</i>	
15:30	Coffee break				
16:00	<b>Experiments overview II</b>	<b>Welcome Address by the ECT* Director, Prof. Dr. J. Wambach</b>	<b>New approaches in <math>^3\text{H}</math> experiments</b>	<b>Workshop summary</b>	
	<b>C. Hassel:</b> (40'+5') <i>The ECHO experiment</i>	<b>Poster session</b>	<b>C. Tully:</b> (25'+5') <i>The PTOLEMY experiment</i>	<b>T. Lasserre:</b> (50') <i>Concluding talk</i>	
	<b>M. Faverzani:</b> (40'+5') <i>The HOLMES experiment</i>		<b>A. Cocco:</b> (25'+5') <i>Status of PTOLEMY</i>		
			<b>N. Steinbrink:</b> (25'+5') <i>MAC-E filter time-of flight techniques</i>	<b>Concluding discussions</b>	
	Adjourn to dinner				