

 <p align="center">UNIVERSITY OF MANITOBA</p>		
 <p><b>Contact:</b> Dr. Can-Ming Hu</p> <p><b>Phone:</b> 1-204 - 474 6189</p> <p><b>Fax:</b> 1-204 - 474 7622</p> <p><b>e-mail:</b> <a href="mailto:hu@physics.umanitoba.ca">hu@physics.umanitoba.ca</a></p> <p><b>Mail:</b> Department of Physics and Astronomy University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2</p> <p>or visit our webpage at: <a href="http://www.physics.umanitoba.ca/~hu/">http://www.physics.umanitoba.ca/~hu/</a></p>  	<p align="center"><b>Undergraduate research positions</b></p> <p align="center">(Honours Thesis Research via the  <u>courses PHYS4676, PHYS4678,</u>  <u>and Summer Research Jobs)</u></p> <p>are available in the <a href="#">Dynamic Spintronics Group</a> of the Department of Physics and Astronomy at University of Manitoba to pursue interdisciplinary research in spintronics and microwave technology. The main goal of our projects is to achieve a systematic understanding of spin dynamics with relevance to spintronics and microwave applications. Micro-device fabrication, cryogenic operation, RF and microwave testing are integrated in our research training. Current research projects include:</p> <ol style="list-style-type: none"> <li>(1) <b>Magnetism:</b> Spin dynamics in ferromagnetic materials;</li> <li>(2) <b>Spintronics and spin caloritronics:</b> Study the conversion of charge, heat, and spin currents;</li> <li>(3) <b>Wave physics:</b> Development of metamaterials and phase detection techniques for microwave applications;</li> <li>(4) <b>RF application:</b> Development of novel microwave imaging for biological, medical and industrial applications.</li> </ol> <p>The undergraduate students will be teamed up with our graduate students and research associates, receiving hands-on training in frontier condensed matter physics research. Each specific project will be planned according to the student's interest and talent. Previous experience in microfabrication, materials science, RF and microwave technology will be helpful but not required. A keen interest in interdisciplinary research and a strong commitment to academic excellence is essential.</p>	<p align="center">Some of our brightest undergraduate students:</p>  <p align="center">Michael Harder (2010)          (1<sup>st</sup> Prize Winner of NSERC          Poster Competition)</p>  <p align="center">Paul Hyde (2012)          (1<sup>st</sup> Prize Winner of MIM          Poster Competition)</p>  <p align="center">Sandeep Kaur (2014)          (2<sup>nd</sup> Prize Winner of NSERC &amp;          MIM Poster Competitions)</p> <p align="center">and</p>  <p align="center">me?</p> <p align="center"><b>YOU !</b></p>