

# Mustafa M. Rajabali

Assistant Professor

**Profile**  
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**Research interests**  
Low energy nuclear physics - Study of nuclear structure via  $\alpha$ ,  $\beta$ ,  $\gamma$  decay, laser spectroscopy and detector development for radiation detection.  
Interdisciplinary science - Application of radiation detection methods for research in geography, biology and environmental science.

**Research & academic experience**  
**Assistant professor** 08/2014 - present  
Nuclear Structure and detector development  
*Tennessee Technological University, USA*  
**Research associate** 01/2012 - 07/2014  
*TRIUMF, Canada*  
**Post doctoral research fellow** 09/2009 - 12/2011  
*Katholieke Universiteit Leuven, Belgium*

**Education**  
**PhD, Nuclear Physics** 08/2005 - 08/2009  
*University of Tennessee, USA*  
**M.S., Condensed Matter Physics** 08/2003 - 08/2005  
*University of North Dakota, USA*  
**B.A., Physics** 01/2000 - 04/2003  
*Concordia College, USA*

**Selected publications (over 40 in total)**  
M. M. Rajabali, R. Grzywacz, S. N. Liddick, C. Mazzocchi, J. C. Batchelder, T. Baumann, C. R. Bingham, I. G. Darby, T. N. Ginter, S.V. Ilyushkin, M. Karny, W. Królas, P. F. Mantica, K. Miernik, M. Pfützner, K. P. Rykaczewski, D. Weisshaar, J. A. Winger:  $\beta$ -decay of  $^{72}\text{Co}$  and microsecond isomers in even-mass neutron rich Ni isotopes, *Journal of Physics G*, **41**, 115104, 2014.  
**Selected as one of the highlights of 2014 in Journal of Physics G.**

M. M. Rajabali, K. M. Lynch, T. E. Cocolios, J. Billowes, M. L. Bissell, S. De Schepper, K. Dewolf, K. T. Flanagan, F. Le Blanc, B. A. Marsh, P. J. Mason, I. Matea, G. Neyens, J. Papuga, T. J. Procter, S. Rothe, G. Simpson, A. J. Smith, H. H. Stroke, D. Verneyg, P. M. Walker, K. Wendt, R. Wood: A dedicated decay-spectroscopy station for the collinear resonant ionization experiment at ISOLDE, *Nuclear Instruments and Methods in Physics Research A*, **707**, 3539, 2013.

M. M. Rajabali, R. Grzywacz, S. N. Liddick, C. Mazzocchi, J. C. Batchelder, T. Baumann, C. R. Bingham, I. G. Darby, T. N. Ginter, S.V. Ilyushkin, M. Karny, W. Królas, P. F. Mantica, K. Miernik, M. Pfützner, K. P. Rykaczewski, D. Weisshaar, J. A. Winger:  $\beta$ -decay of  $^{71,73}\text{Co}$  - probing single particle states approaching doubly magic  $^{78}\text{Ni}$ , *Physical Review C*, **85**, 034326, 2012.