Meng-Hock KOH

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EDUCATION BACKGROUNDS

2013 – 2015	PhD, Co-supervised thesis between Universiti Teknologi Malaysia and Universite de Bordeaux, France
2009 – 2012	MSc, Department of Physics, University of Malaya
2003 – 2006	BSc, Department of Physics, Universiti Teknologi Malaysia

TEACHING AND OTHER WORKING EXPERIENCES

Nov. 2015 – present	**Department of Physics, Faculty of Science, Universiti Teknologi Malaysia (UTM)** Senior Lecturer • Taught basic and advanced nuclear physics, mathematical physics and quantum mechanics (undergraduate) and research methodology (postgraduate level).
Aug. 2008 – Oct. 2015	**Department of Physics, Faculty of Science, Universiti Teknologi Malaysia** Tutor • Assisted lecturers in undergraduate physics laboratory
Dec. 2006 – July 2008	**Subang Jaya Medical Center (now known as Sime Darby Medical Center)** Nuclear Medicine Technologist • Performed diagnostic and therapeutic procedures using radioactive sources

NOTABLE PUBLICATIONS

1.	**Meng-Hock Koh**, Nurhafiza M. Nor, Nor-Anita Rezle, Kai-Wen Kelvin-Lee, P. Quentin, Norehan M. Nor and L. Bonneau: *Skyrme-Hartree-Fock approach for description of static nuclear properties of well-deformed nuclei.* Mal. J. Fund. Appl. Sci. 16, 34 (2020).
2.	Kai-Wen Kelvin-Lee, Nurhafiza M. Nor, **Meng-Hock Koh**, Nor Anita Rezle, Norehan Mohd Nor, *Uncertainties in static nuclear properties due to pairing fit procedures within Skyrme-Hartree-Fock approach*. Mal. J. Fund. Appl. Sci. 16, 102 (2020).
3.	Nurhafiza M. Nor, Nor-Anita Rezle, Kai-Wen Kelvin-Lee, **Meng-Hock Koh**, L. Bonneau and P. Quentin: *Consistency of two different approaches to determine the strength of a pairing residual interaction in the rare-earth region.* Phys. Rev. C. 99, 064306 (2019) (IF: 3.304).
4.	T. V. Nhan Hao, N. Nhu Le, **Meng-Hock Koh**, N. Quang Hung, N. Ngoc Duy, Vinh N. T. Pham and N. Hoang Tung: *Microscopic optical potential obtained from energy-density-functional approach for neutron-nucleus elastic scattering*. Int. J. Mod. Phys. E 27, 1850052 (2018) (IF: 1.615).
5.	**Meng-Hock Koh**, L. Bonneau, P. Quentin, T. V. Nhan Hao and H. Wagiran: *Fission barriers of two odd-neutron actinide nuclei taking into account the time-reversal symmetry breaking at the mean-field level*. Phys. Rev. C 95, 014315 (2017) (IF: 3.140).

6.	**Meng-Hock Koh**, Dao Duy Duc, T. V. Nhan Hao, Ha Thuy Long, P. Quentin and L. Bonneau: *Band-head spectra of low-energy single-particle excitations in some well-deformed, odd-mass heavy nuclei within a microscopic approach.* Eur. Phys. J. A. 52(3) (2016) (IF: 2.736).
7.	T. V. Nhan Hao, J. Le Bloas, **Meng-Hock Koh**, L. Bonneau, P. Quentin*. *Further microscopic studies of the fission barriers of heavy nuclei*. Int. J. Mod. Phys. E 21, 1250051 (2013) (IF: 0.842).
8.	J. Le Bloas*, **Meng-Hock Koh**, P. Quentin, L. Bonneau and J.I.A. Ithnin. *Exact Coulomb exchange calculations in the Skyrme-Hartree-Fock-BCS framework and tests of the Slater approximation*. Phys. Rev. C 84, 014310 (2011) (IF: 3.308).

RESEARCH GRANTS / FINANCIAL AIDS (AS PRINCIPAL INVESTIGATOR)

Year	Grant information
2019 (On-going)	**Fundamental Research Grant Scheme (National level)** Project title: New pairing treatment within mean-field approach to describe rotational band-head of odd-mass nuclei. Amount : RM 57,600
2019 (Completed)	**Erasmus+ *KA107* International Credit Mobility Programme (International level)** To fund a short visit to Universidad Autonoma de Madrid (Prof. Luis Robledo). Amount : € 2,620
2017 (Completed)	**University Research Grant (University level)** Project title: Building washout effect on radioactive dispersion modelling using Gaussian plume model Amount : RM 20,000
2016 (Completed)	**Potential Academic Staff (University level)** Project title: Probabilistic safety assessment (PSA) of aircraft impact on TRIGA research reactor in Malaysia Amount : RM 20,000
2013 – 2015 (Completed)	**Scholarship from Universiti Teknologi Malaysia for PhD study** (co-supervised thesis program between Universiti Teknologi Malaysia and University of Bordeaux)
2012 (Completed)	**Travel grant from French Embassy in Malaysia** Purpose : One-month research attachment in Centre Etudes Nucleaires de Bordeaux Gradignan
2009 – 2011 (Completed)	**Scholarship from Universiti Teknologi Malaysia for MSc. study** (MSc. study in University of Malaya)

POSTGRADUATE SUPERVISION EXPERIENCES

Graduated (2019)	Nurhafiza Mohamad Nor (MSc by research) • Project: Microscopic calculations of global nuclear properties within mean-field approach with time-reversal symmetry breaking

Graduated (2019)	Nor Anita Rezle (MSc by mixed mode) • Project: Effect of core polarization on magnetic moment within a mean-field approach.
On-going	Nurlyana Binti Omar • Project: Impact of building washout effect on atmospheric dispersion of radioactive substance due to hypothetical nuclear accident

NOTABLE LEADERSHIP ROLES

2020 – present	Coordinator, Postgraduate Research Program for Department of Physics, Faculty of Science, UTM
2018 – present	Faculty Coordinator, Undergraduate Internship Program • Coordinating outbound internship training • Also in charge of internship students at the departmental level
2018 – 2020	Coordinator, Master of Science (Physics) Mixed Mode Program • One major task taken during appointment is to head a taskforce in-charge of revamping the current MSc program
Dec. 2019	Program Director, *8th Winter School on Nuclear Sciences* co-organized with University of Bordeaux
July 2019	Committee member, *International Conference and Workshop on Basic and Applied Sciences* (ICOWOBAS) 2019 organized by Faculty of Science, UTM.
Oct. 2018	Program Director, *Colloquium on Nuclear and Radiation Physics* (CNRP) 2016
Dec. 2016	Program Director, *Regional Conference on Nuclear and Radiation Physics* (RCNP) conference

ROLES AS REVIEWER

Scientific journals	• Radiation and Environmental Biophysics, Springer (Q3) • Sains Malaysiana, UKM (Q3) • Jurnal Teknologi, UTM • Malaysian Journal of Fundamental and Applied Sciences, UTM
Scientific events	• SOKENDAI KEK Tsukuba/J-PARC Summer Student Program 2020 • South East Asian Technical University Consortium Symposium (SEATUC) 2019 • 7th International Graduate Conference on Engineering, Science and Humanities (IGCESH) 2018 • 1st UTM Emerging Scientists Conference (UTM-ESCon) 2018
Research grant application	• UTM Research University Grant – Tier 1 and Tier 2 • UTM Encouragement Grant

SCIENTIFIC PRESENTATIONS (AS INVITED SPEAKER)

Dec. 2019	Lectures on *Quantum Mechanics* in the 8th Winter School on Nuclear Science, UTM Johor Bahru.
Nov. 2019	14th Asia-Pacific Physics Conference (APPC) 2019 on *"Impact of nuclear tensor force on properties of well-deformed nuclei within a mean-field approach"* in Kuching, Sarawak
Oct. 2019	International Conference on Applied & Engineering Physics (CAEP) on *"New Skyrme parametrization with nuclear tensor for fission studies"* in Thai Nguyen, Vietnam
June 2019	Seminar on *"Mean-field studies of rare-earth nuclei within Skyrme energy density functional"* in Centre Etudes Nucleaires de Bordeaux Gradignan and Universidad Autonoma de Madrid
Dec. 2018	The First French–Malaysian Convention on Higher Education & Research, *"Microscopic studies of the structure and fission properties of heavy nuclei"* in Kuala Lumpur
Nov. 2018	International UKM-University of Bordeaux Winter School on *"Mean-field approach to fission and fission cross-section modelling" in* UKM, Kuala Lumpur
Sept. 2018	International Seminar on Mathematics in Industry (ISMI) – International Conference on Theoretical and Applied Statistics (ISTAS) on *"Skyrme-Hartree-Fock approach for descriptions of static nuclear properties of well-deformed nuclei"* in UTM KL, Kuala Lumpur

COMMUNITY ENGAGEMENTS

November 2017	Invited Speaker, *Science Talk and Laboratory Visit* – organized by Center For Sustainable Nanomaterials, UTM to a group of school students
May 2017	Task Force, *Science for the Future* program in conjunction with the National Transformation 2050

IMPORTANT AWARDS / RECOGNITIONS

2017	Gold medallist (chess team event), Malaysian Inter-Varsity Staff Sports Championship
2015	*Excellent Service Award* (University level award granted to about 20 staff per faculty annually)
2015	*Best Student Award* and *Merit Thesis Award* in conjunction with UTM 56th Convocation Ceremony
2014	*Advanced Communicator Bronze* (ACB) in Toastmasters International Communication program