

# Emmanuel Njumbe Epie

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## PROFESSIONAL SUMMARY

- Physics Graduate Teaching and Research Assistant with more than 10 years of experience in teaching undergraduate and high school physics.
- Database Administrator with 2 years of experience in corporate data management with DBase IV

## EDUCATION AND TRAINING

**Pursuing Doctoral Degree in Physics** 09/2016  
University of Houston – Houston, TX, USA

**Master of Science in Physics** 05/2014  
University of Houston – Houston, TX, USA

**Post Graduate Diploma in Condensed Matter Physics** 08/2011  
Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Friuli-Venezia Giulia, Italy  
*Thesis Title: "In Silico Optimization of Anti-Cancer Peptides"*

**Master of Science in Physics** 09/2008  
University of Buea – Buea, South West Region, Cameroon  
*Thesis Title: "A New Family of Exactly Integrable Discrete Hamiltonians Derived from the Non-Integrable Dikande-Kofane Double-Well Hierarchy."*

**Bachelor of Science in Physics** 09/2005  
Minor: Computer Science  
University of Buea – Buea, South West Region, Cameroon

## WORK EXPERIENCE

**Research Assistant** 12/2012 - Current  
*TcSUH Ion Beam Laboratory, University of Houston - Houston, TX*

- Carried out ion implantation, Rutherford backscattering spectrometry and ionoluminescence experiments
- Executed basic repairs and maintenance of the accelerator such as cleaning the ion sources, changing targets, replacing broken ionizers, gate valves, worn out flanges and O-rings as well as broken water pipes.
- Custom designed electronics and hardware for specific experiments which the system was not originally designed for.

**Teaching Assistant** 09/2011 - Current  
*Physics Department, University of Houston* Houston, TX

- Tutored general physics courses such as PHYS 1321, PHYS 1101, PHYS 1102
- Setup and supervised physics experiments
- Regularly evaluated students' progress by grading their exams, assignments and lab reports

**Assistant Database Administrator** 10/2008 - 09/2010  
*Computer Service, University of Buea* Buea, Cameroon

- Updated and managed the university's central database system
- Processed student's grades and generated academic transcripts
- Generated statistics upon demand on students' biodata and academic standing using DBase IV, Microsoft Access and Microsoft Excel.
- Produced regular class and exam timetables
- Evaluated and authenticated academic records of former students upon request from employers and foreign universities.

## SKILLS

**Maintenance and Basic repairs:** 1.7 MV NEC Tandem accelerator, vacuum technology.

**Programming:** Fortran90, C, Basic, Python, Pascal, DBase IV and Access 2013

**Proficient user:** Windows and Linux operating systems; Mathematica, Origin, Matlab & gnuplot; Microsoft Office (Word, Excel and Access); Blackboard learn, Turning Technologies.

**Multilingual:** English, Akosse, French (intermediate level) and Italian (basic level)

## LEADERSHIP/VOLUNTEER ACTIVITIES

<b>Secretary General</b> <i>Nyasoso Cultural and Economic Development Association</i> , Houston, TX.	<b>09/2013 - Current</b>
<b>Student leader</b> <i>Bridges International – Houston Branch</i> , Houston, TX	<b>10/2013 – Current</b>
<b>Secretary General</b> University of Buea Association for the Advancement of Physics (UBAAP), Buea, Cameroon	<b>11/2004 – 10/2005</b>

## MEMBERSHIP/AFFILIATIONS

<b>Member</b> , <i>American Physical Society</i>	<b>09/2012 – Current</b>
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## PUBLICATIONS

**E. N. Epie**, W. K. Chu, *Ionoluminescence study of Zn<sup>-</sup> and O<sup>-</sup> implanted ZnO crystals: An additional perspective*, Applied Surface Science 371 (2016) 28 – 34. DOI: [/10.1016/j.apsusc.2016.02.174](https://doi.org/10.1016/j.apsusc.2016.02.174)

**E. N. Epie**, D. N. Wijesundera, B. P. Tilakaratne, Q. Y. Chen, W. K. Chu, *Rate of F center formation in sapphire under low-energy low-fluence Ar<sup>+</sup> irradiation*, Nuclear Instrumentation and Methods in Physics Research B 371 (2016) 303 – 306 DOI: [10.1016/j.nimb.2015.09.037](https://doi.org/10.1016/j.nimb.2015.09.037)

**Epie Njumbe E.**, *In Silico Optimization of Anti-Cancer peptides*, Postgraduate Diploma Thesis, The Abdus Salam International Center for Theoretical Physics, Trieste (2011).

M. Dikande and **Epie Njumbe E.**: *A Class of conservative Hamiltonians with exactly integrable discrete two-dimensional parametric maps*, Physica Scripta 81 (2010) 055002.

**Epie Njumbe E.**, Dikand A. M. and Kofane T. C.: *Integrable discrete static Hamiltonians with a parametric double-well potential*, Physics Letter A 372 (2008) 6890.

**Epie Njumbe E.**, *A New Family of Exactly Integrable Discrete Hamiltonians Derived from the Non-Integrable Dikandé-Kofané Double-Well Hierarchy*, M.Sc. Thesis, University of Buea (2008).