Curriculum Vitae

Dr. Paul Odhiambo Oleche

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Mathematics Department

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PERSONAL INFORMATION

Date of Birth: 27 June 1957	*Marital Status:*. . . . . .Married
Sex:. . . . . .Male	*Number of children:* 6 (Ages 4 − 24)
Nationality: . . . . Kenyan	

OBJECTIVE

Using computational skills in mathematics and Computer Science to provide sustainable solutions to developmental challenges.

EDUCATION

PHD.	**Maseno University**
Maseno, Kenya.	**2006 − 2008**

Thesis entitled "Almost Holomorphic Functional Calculus".

MSC.	**Kenyatta University**
Nairobi, Kenya.	**1985 − 1987.**

- Thesis entitled "Numerical Range of Operators in a Hilbert space".
- The only student in the course.

BED(SCIENCE)	**University of Nairobi**
Nairobi, Kenya.	**1981 − 1985.**

- Course specially tailored for 'A'-level mathematics teachers.
- Best student in pure mathematics.

KACE (KENYA ADVANCED CERTIFICATE OF EDUCATION)	**Nakuru High School**
Nakuru, Kenya.	**1978 − 1979.**

EACE (EAST AFRICAN CERTIFICATE OF EDUCATION)	**Nyeri Technical High School**
Nyeri, Kenya.	**1975 − 1978.**

- Best student in mathematics.

CPE (CERTIFICATE OF PRIMARY
EDUCATION)
Miwani, Kenya.

Ombeyi Primary School

1968 − 1974.

RESEARCH AND WORK EXPERIENCE

Dean, School of Mathematics and Actuarial
Science.

Maseno University

Maseno, Kenya.

12 August 2011 − present

Duties included administration, scheduling lab use and general maintenance of equipment. Also teach pure mathematics courses namely calculus, linear algebra, real analysis, measure theory, complex analysis, topology, abstract algebra. At postgraduate level, I teach courses in analysis and topology. I also teach computer science namely procedure oriented programming, object oriented programming, systems analysis (software development), Computer networking (data communication), computer application packages.

Associate Professor.

Maseno University

Maseno, Kenya.

7 June 2010 − present

I teach pure mathematics courses namely calculus, linear algebra, real analysis, measure theory, complex analysis, topology, abstract algebra. At postgraduate level, I teach courses in analysis and topology. I also teach computer science namely procedure oriented programming, object oriented programming, systems analysis (software development), Computer networking (data communication), computer application packages.

Senior Lecturer.

Maseno University

Maseno, Kenya.

May 2000 − 6 June 2010.

I teach pure mathematics courses namely calculus, linear algebra, real analysis, measure theory, complex analysis, topology, abstract algebra. At postgraduate level, I teach courses in analysis and topology. I also teach computer science namely procedure oriented programming, object oriented programming, systems analysis (software development), Computer networking (data communication), computer application packages.

Lecturer.

Maseno University

Maseno, Kenya.

April 1995 − May 2000

I tought undergraduate pure mathematics courses and computer science namely calculus, linear algebra, real analysis, measure theory, complex analysis, topology, abstract algebra, procedure oriented programming, object oriented programming, and computer application packages. I also taught postgraduate courses in analysis and topology.

Faculty Examinations/Timetable
Coordinator.

Maseno University

Maseno, Kenya.

November 1999 − December 2000

Duties included drafting faculty timetable and coordinating it with other faculty timetable coordinators. There after, I would be responsible for revising it as necessary. With respect to examinations, I kept a record of all faculty students, the courses they registered in and marks they obtained in each registered course. At the end of the year I would calculated their averages and table it in the faculty board of examiners for decision.

Head, computer centre **Maseno University**
Maseno, Kenya. **March 1998 − March 1999.**
Duties included administration, scheduling lab use and general maintenance of equipment.
Also taught computer programming in Pascal, BASIC, FORTRAN, and CLIPPER C, C++
and FOXPRO. Drafted the undergraduate program in computer electronics and science.
Started a computer and electronics maintenance service. Formulated consultancy services
to researchers, students and business concerns.

Head, Mathematics Department **Maseno University**
Maseno, Kenya. **March 1997 − March 1998.**
Besides administrative duties, developed the MSc (pure and applied Mathematics) program.
Initiated weekly departmental seminars. Taught courses Analysis, Topology and Algebra.

Lecturer. **Egerton University**
Njoro, Kenya. **1988 − 1995.**
Teaching undergraduate pure mathematics courses namely calculus, linear algebra, real
analysis, measure theory, complex analysis, topology and abstract algebra. Also taught
computer programming in Pascal, BASIC, FORTRAN, and CLIPPER.

Research Fellow **Kings College London**
London, UK **1993 − 1995.**
I started my PhD work during my two year visit under the auspices of Association of
Commonwealth Universities.

Tutorial Fellow **Kenyatta University**
Nairobi, Kenya **1987 − 1988.**
I graded homework and conducted review sessions for graduate and undergraduate classes.

Consultant **Egerton University**
Njoro, Kenya. **1990 − 1993.**
I was hired as a consultant to develop a student record maintenance system for Egerton
University. The project was completed in 1993. It is now being used in all Egerton Uiversity
Campuses. I still provide support for this project.

Consultant **Maseno University**
Maseno, Kenya. **1995 − todate.**
I have developed a student record maintenance system for Maseno University. This is an
on going project started in 1990 at Egerton uninversity. I also carry out computer aided
data analysis for researchers who need this service. I use SPSS, SAS and other packages.
Often I write customised routines in PASCAL, CLIPPER, FORTRAN, and other XBASE
database systems.

Consultant **Maseno University**
Maseno, Kenya. **1998.**
I was hired as a consultant to develop Maseno University Electronics Library. I did the
proposal for the project which has been accepted for support by UNESCO. As a result, a
server has been donated by UNESCO towards these efforts. This is an on going project in
its early stages.

Consultant **Port Florence Comminity Hospital**

Kisumu, Kenya. **2006– todate.**

I was hired as a consultant to develop Hospital Information System for Port Florence Community Hospital. As of now, the system is in place and the hospital relies on it for patient management, accounts, inventory, payroll, Human resource and general management support. This is an on going project and I believe if all hospitals in kenya adopt it, then the quality of health care in the country can be improved a great deal since it can provide needed vital information of patients from any location of the country or even abroad since it uses the internet protocol. More importantly it has a tool that can support collaboration of doctors locally and abroad on specialized procedures.

Developer **Vote Tallying software**

Kisumu, Kenya. **2007.**

I developed a vote tallying software that can be used to tally votes dip down at the poling centre and streams. The returning office can instantly key in the results at a national database from the polling centre. It can consolidate votes at all levels starting with the stream then polling centre, the constituency and all the way to national level depending on the type of election. Election types are configurable and may have local or national scopes. The results are instantly published on the web site and can be viewed using a separate client. Visitors to the site can look at the results presented graphically or numerically. The performance of the parties can be compared per continency and also nationally. The statistical analysis are many and varied.

Thesis Supervision. **Maseno University**

Maseno, Kenya **Jan. 2000 – todate**

I have guided the following thesis:

1. WINDA CHARLES AKATCH; "ON EVEN ROOTS OF $(\alpha; \alpha + 1) - -$ type R OPERATOR; MSC thesis completed in 2014, Maseno University.

2. Amos Wanjara; "THE FIVE MAJOR THEOREMS IN ANALYSI" ; MSC thesis completed in 2013, Maseno University

3. Daniel Onyango Adicka; "Asymtotic Estimates for the Biharmonic Operators on a Rectangle"; MSC thesis completed in 2006, Maseno University.

4. Sadia Hassan Mwangangi; "On the Convexity of Numerical Ranges"; MSC thesis completed in 2004; Maseno University.

5. Ong'ala, Jacob Otieno, "Modeling the Dynamics of Bacteremic Pneumonia:The role of Control Strategies, Case Detection and Prophylaxis", PhD thesis, Completed in 2014, Maseno University.

6. Otieno Joyce Akinyi, "OPTIMAL CONTROL OF TRYPANOSOMIASIS IN CATTLE", PhD thesis, Completed in 2014, Maseno University.

7. BENARD OKELO,"Elementary operators and their orthogonality in normed spaces" ,PhD thesis, Completed in 2012, Maseno University.

8. Shadrack Adero Walwenda, "Zero divisor graphs of a class of completely primary Finite rings of characteristic p^k.", PhD thesis, Ongoing, Maseno University.

9. UKANDA, FERDINAND INGUBU, "EFFECTIVENESS OF MANTEL-HAENSZEL AND LOGISTIC REGRESSION STATISTICS IN DETECTING DIFFERENTIAL ITEM FUNCTIONING UNDER DIFFERENT CONDITIONS" , PhD thesis, ongoing , Maseno University.

10. Otieno Josia "Spectral operators" ongoing Phd thesis, Egerton University

11. Daniel Onyango Adicka; "Scalar operators", PhD thesis, ongoing , Maseno University.

12. Donnie Munyao "Finite Solvable Groups with 4-Regular Prime Graphs", PhD thesis, ongoing , Maseno University.

13. OCHIENG' DANIEL ACHOLA; "A SECURE HYBRID CRYPTOGRAPHIC ELECTION MODEL", PhD thesis, ongoing , Maseno University.

Thesis examined. **Maseno University**
Maseno, Kenya **Jan. 2000 − todate**
I have examined the following thesis:

1. Okwany, Isaach Odhiambo, "On Schwarz Norms", Msc Thesis submitted in 2015, Maseno University.

2. Julia Ndong'a Owino, "On Completely Positive Maps", Msc Thesis submitted in 2014, Maseno University.

3. Ahomo Maricus Omolo,"The Analysis of Gamma Strategies for a Nonlinear Black-Scholes Equation."; Msc Thesis submitted in July 2014, Maseno University.

4. Owego, Dancun Okose,"On the Essential Numerical Range", , Msc Thesis submitted in 2013, Maseno University.

5. Wambua, Victoria Mwia, "Calculations For Mutations of Quivers With Potential"

6. James Kaleli Musyoka, "Tables and Graphs for Descriptive Analysis and Presentation", Msc Thesis submitted in July 2011, Maseno University.

7. Odero, Beatrice Adhiambo; "Norms of Tensor products and Elementary Operators", Msc Thesis submitted in July 2009, Maseno University.

8. Daniel Nyamwala Fredrick Oluoch, "Norms of Inner Derivations and of Symmetrised two-sides Multipliction Operators", Msc Thesis submitted in 2005, Maseno University.

9. Okaka Colletta Akinyi, "Mathematics of war: Guerrilla Verses Guerrilla war model", Msc thesis submitted in 2005, Maseno University.

10. Inguza Nick Munangwe, "On Numerical Ranges and Norms of Derivations", Msc Thesis 2005, Maseno University.

11. Nyamwala Fredrick Oluoch, "Norms of Inner Derivations and of Symmetrised Two-Sided Multiplication"; Msc Thesis submitted in 2005, Maseno University.

12. Ogik Wyclife Rao, "(p,q)-Summing Multipliers", Msc Thesis submitted in 2003, Maseno University.

13. Okaka Colletta Akinyi, "Modelling the Impact of Misdiagnosis and Treatment on the Dynamics of Malaria Concurrent and Co-Infection with other Common Diseases", PhD Thesis submitted 2014, Maseno University.

14. Denis Arnold Njue King'ang'i; "Norms of Elementary Operators",PhD Thesis submitted 2014, Maseno University.

15. Owino Maurice Oduor, "Unit Groups of Certain Classes of Commutative Finite Rings", PhD Thesis submitted 2009, Maseno University.

16. Ruto, Peter Kiptoo, "Norm of Elementary Operators", PhD Thesis submitted 2009, Maseno University.

High School Teacher.   **Kenya Teachers Commission**
Moi Girls High School, Eldoret, Kenya   **Jan. 1985 – Sep. 1985**
I had a short experience, teaching 'A'-level Mathematics.

INTERNATIONAL CONFERENCES AND WORKSHOPS

Linnaeus-Palme Conference
Stockholm, Sweden – 2015

Linnaeus-Maseno Collaboration
Kalmar, Sweden – 2014

Summer School of Complex Analysis
Nice, France – 1989

Summer School of Harmonic Analysis
Edinburgh, Scotland – 1994

ICM 1990
Kyoto, Japan – 1990

SPECIAL SKILLS

- Trained teacher.
- Programming Languages: C, Java, PHP, HTML, Fortran, Pascal, Basic, and XBase.
- As a hobby, Auto-mechanics, electronics and other DIY.

HONOURS AND AWARDS

- Best Mathematics Student – Nyeri Tech. School, Nyeri, Kenya – 1978
- Kenyatta University Postgraduate Scholarship– Kenyatta University, Nairobi, Kenya 1985.
- Commonwealth Scholarship – 1992.

RECENT PUBLICATIONS:

*

References

[1] Ojiema M. Onyango, Owino M. Oduor, Odhiambo P. Oleche Automorphisms of the Unit Groups of Power Four Radical Zero Finite Commutative Completely Primary Rings *Pure Mathematical Sciences,* Vol. 5, 2016, no. 1, 11 - 25

[2] Ojiema M. Onyango, Owino M. Oduor, Odhiambo P. Oleche AUTOMORPHISMS OF THE UNIT GROUPS OF SQUARE RADICAL ZERO FINITE COMMUTATIVE COMPLETELY PRIMARY RINGS *International Journal of Pure and Applied Mathematics*, Volume 108 No. 1 2016, 39-48

[3] DO Adicka, W Mukuna, and PO Oleche. On necessary conditions for scalars. *International Mathematical Forum*, 9(19):947–952, 2014.

[4] J Otieno, JYT Mugisha, BK Nannyonga, and P Oleche. Parameter driven dynamics of trypanosomiasis in a cattle population. *Applied Mathematical Sciences*, 8(54):2665–2685, 2014.

[5] Raymond Omollo, Neal Alexander, Oleche Paul, Monique Wasunna, Ahmed Musa, Eltahir Khalil, Asrat Hailu, Joseph Olobo, Tansy Edwards, and Ongati NO. Timing for definitive cure in clinical trials for visceral leishmaniasis. *International Journal of Multidisciplinary Sciences and Engineering*, 5(8):2457–2473, 2014.

[6] Bernard Okelo, John Agure, and PO Oleche. Certain conditions for norm-attainability of elementary operators and derivations. *International Journal of Mathematics and Soft Computing*, 3(1):53–59, 2013.

[7] Bernard Okelo, John Agure, and PO Oleche. Strict characterizations for amenability in Banach algebras and certain subclasses. *International Journal of Mathematics and Soft Computing*, 3(1):1–11., 2013.

[8] NB Okelo, JO Agure, and PO Oleche. On norm-attainability of elementary operators. *International Journal of Science Research and Technology*, 1(1):6–10, 2013.

[9] NB Okelo, JO Agure, and PO Oleche. Various notions of orthogonality in normed spaces. *Acta Mathematica Scientia*, 33(5):1387–1397, 2013.

[10] Mugisha Joseph Ongala Jacob Otieno and Oleche Paul. Mathematical model for pneumonia dynamics with carriers. *International Journal of Mathematical Analysis*, 7(50):2457–2473, 2013.

[11] Paul O Oleche and John O Agure. A functional calculus for $(\alpha, \alpha+ 1)$- type r operators. *Int. Journal of Math. Analysis*, 4(15):737–760, 2010.

[12] John O Agure and Paul O Oleche. On numerical and centre values range. *Int. Journal of Math. Analysis*, 4(5):727–736, 2010.

[13] Paul O Oleche, N Omolo-Ongati, and John O Agure. Operators with slowly growing resolvents towards the spectrum. *International Journal of Pure and Applied Mathematics*, 51(3):245–357, 2009.

[14] Paul O Oleche, N Omolo-Ongati, and John O Agure. The algebra of smooth functions of rapid descent. *International Journal of Pure and Applied Mathematics*, 52(2):163–176, 2009.

OTHER PUBLICATIONS

- Paul O. Oleche, "Effectiveness of the almost analytic functional calculus",
  to appear in International Journal of Pure and Applied Mathematic.

- Paul O. Oleche, "Almost Holomorphic Functional Calculus",
  PhD thesis, Maseno University, 2008.

- Paul O. Oleche, "Basic Analysis and Differential Calculus",
  A book – complete, to be published.

- Paul O. Oleche, "Point Set topology",
  A book – Complete, awaiting publication.

- Paul O. Oleche, "Real Analysis",
  A book – in preparation.

- Paul O. Oleche, "Elements of Abstract Algebra",
  A book – in preparation.

- Paul O. Oleche, "An invitation to C*-algebras",
  An invited seminar – Maseno University, 1998.

- Paul O. Oleche, "Computer Applications and Packages I",
  A course book – Maseno University 1996.

- Paul O. Oleche, "Computer Applications and Packages II",
  A course book – Maseno University 1996.

- Paul O. Oleche, "Impact of IT on Universities and other work places",
  An invited seminar – Maseno University, 1997.

- Paul O. Oleche, "Student's survival guide",
  Maseno University, 1998.

- Paul O. Oleche, "Connecting to the Internet, What Connecting Institutions should Anticipate",
  Maseno University, 1998.

- Paul O. Oleche, "Internet Users Glossary",
  Maseno University, 1998.

- Paul O. Oleche, "Network Site Security Handbook",
  Maseno University, 1998.

- Paul O. Oleche, "Using your Computer Vol 1, an Introduction to Computer Application Packages under Windows 98 ",
  Maseno University, 2000.

- Paul O. Oleche, "Using your Computer Vol 2, an Introduction to Computer Application Packages under Windows 98 ",
  Maseno University, 2000.

- Paul O. Oleche, "Using your Computer Vol 3, an Introduction to Computer Application Packages under Windows 98 ",
  Maseno University, 2000.

- Paul O. Oleche, "Using your Computer Vol 4, an Introduction to Computer Application Packages under Windows 98 ",
  Maseno University, 2000.

- Paul O. Oleche, "Programming in VISUAL FOXPRO Vol 1",
  Maseno University, 2000.

- Paul O. Oleche, "Programming in VISUAL FOXPRO Vol 2",
  Maseno University, 2000.

- Paul O. Oleche, "Programming in PASCAL",
  Maseno University, 2000.

References

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