CURRICULUM VITAE

PERSONAL DATA

- **Full name:** Baylie Damtie Yeshita
- **Date and place of birth:** 27-10-1974, Debre Markos
- **Sex:** Male
- **Citizen:** Ethiopian

EDUCATION

- Ph.D. in Physics from University of Oulu, Finland, May 12, 2004.
- M.Sc. in Physics from University of Tromso, Norway, July 16, 1999.
- B.Sc. in Physics from University of Addis Ababa, Ethiopia, April 2, 1996.

EMPLOYMENT

- Assistant professor of Physics, Bahir Dar University, Ethiopia: Sept. 2004-present.
- Adjunct professor of Physics, Addis Ababa University, Ethiopia: Sept. 2004-present.
- Research associate, University of Oulu, Finland: Apr. 2004-present
- Researcher, university of Oulu, Finland: Jan. 2000-Apr. 2004.
- Researcher, EISCAT(European Incoherent SCATter) Radar Data Laboratory, Finland: Sept. 1999-Dec. 1999.
- Research assistant, University of Tromso, Norway: July. 1999-Aug. 1999.
- Graduate assistant, University of Bahir Dar, Ethiopia: Aug. 1996-Aug. 1997.
- Science educator, British Council, Ethiopia: May-July. 1996.
- Research assistant, University of Addis Ababa, Institute of Educational Research (IER), Ethiopia: April-May. 1996

MANAGEMENT EXPERIENCE

- Chairman, Physics Department, Bahir Dar University, Sept. 2004-Jun. 2005.
- Dean of the School of Graduate Studies, Bahir Dar University, Jun. 2005-present.
- Member of Ethiopian National Graduate Council, Jun. 2007-present.
- National IHY coordinator, Sept. 2006-present.

RESEARCH INTEREST

- Radar and GPS system analysis
- Digital information processing
- Satellite remote sensing and ionospheric science

COMPUTER AND OTHER SKILLS

- Operating system: WINDOWS (excellent), MACINTOSH (excellent), UNIX (working knowledge)
- Programming language: MATLAB (excellent), FORTRAN (working knowledge), C++ (working knowledge)
- Signal processing: Filter design (excellent), Bayesian statistics (excellent), Mathematical inversion (excellent)
- Radar waveform design (excellent)
- HTML program (very good)

PUBLICATIONS

ORIGINAL PAPERS IN INTERNATIONAL REFEREED JOURNALS

- Baylie Damtie, Markku Lehtinen, Mikko Orispää and Juha Vierinen, Mismatched filtering of aperiodic quadriphase codes, to appear on IEEE Transactions on Information Theory, Vol.54, No.4, April, 2008.
- Baylie Damtie, Markku Lehtinen, Mikko Orispää and Juha Vierinen, Optimal long binary phase code-mismatched filter pairs with applications to ionospheric radars, Bull. Astr. Soc. India, 35, 619623, 2007.
- Damtie, B., T. Bösinger, I.G. Usoskin, Establishing a cosmic ray station and other space research facilities in Ethiopia, African Skies, 10, 29-32, 2006.
- Damtie, B., Lehtinen, M.S. and Nygrén, T., Decoding of Barker-coded incoherent scatter measurements by means of stochastic inversion, Ann. Geophysicae, 22, 3-13, 2004.

- Lehtinen, M.S., Damtie, B., and Nygrén, T., Optimal binary phase code and sidelobe-free decoding filter pairs with application to incoherent scatter radar, Ann. Geophysicae,22, 1623-1632, 2004.
- Damtie, B., Nygrén, T., Lehtinen, M. S., and Huuskonen, A., High resolution observations of sporadic-E layers within the polar cap ionosphere using a new incoherent scatter radar experiment, Ann. Geophysicae, 20, 1429-1438, 2002.
- Lehtinen, M., Markkanen, J., Väänänen, A., Huuskonen, A., Damtie, B., Nygren, T., Rahkola, J., A new incoherent scatter technique in the EISCAT Svalbard Radar, Radio Sci., 37(3), 10.1029/2001RS002518, 2002.

SELECTED CONFERENCE PAPERS

- Baylie Damtie, Markku Lehtinen, and Gizaw Mengistu, An Ionospheric Radar Signal Estimation by Means of an Adaptive Filter, IHY-Africa Space Weather Science and Education Workshop, Nov 12-16, 2007.
- Kaila, K., T. Bösinger, and B. Damtie, Magneto-optical Ethiopian-Finn Observatory EFO, 33 rd Annual European Meeting on Atmospheric Studies by Optical Methods, Kiruna, 28 Aug -1 Sept, 2006.
- Baylie Damtie, Tilmann Bösinger, Ilya Usoskin, Establishing Cosmic Ray Station and other space research facilities in Ethiopia, First International Heliophysical Year SCINDA Workshop Cape Verde, July 10-14 2006.
- Damtie, B., and Lehtinen, M., Incoherent Scatter Radar data analysis by means of inversion, 10th Inverse Days 15th-17th December 2004., Sodankylä Geophysical Observatory, Finland.
- Damtie, B., Nygrén, T., and Lehtinen, M., Mathematical inversion used as a decoding filter in the analysis of the incoherent scatter radar measurements, Finnish physics days 20-22.3. 2003, University of Helsinki, Finland.
- Damtie, B., Nygrén, T., and Lehtinen, M., A -Based Signal Receiving ad Processing System for Incoherent Scatter Radar,1st International Conference on Electrical and Computer Engineering (ICECE 2003), Oct. 29-1 Nov., 2003, Bahir Dar University, Ethiopia.
- Damtie, B., Lehtinen, M.S., Huuskonen, A., Nygrén, T. and Väänänen, A., A modern data acquistion and analysis method for the EISCAT incoherent scatter radars , Proceedings of XXVIIth Triennial General Assembly of the International Union of Radio Science, 17-24 August, 2002, Maastricht, the Netherlands.
- Damtie, B., Nygrén, T., and Lehtinen, M., A new method of analyzing Barkercoded incoherent scatter radar experiments, Finnish physics days (14. - 16.3.2002), University of Joensuu, Finland.
- Damtie, B., Nygrén, T., M. Lehtinen, and A. Huuskonen, Application of stochastic inversion in the EISCAT incoherent scatter radar signal analysis, IX Meeting of Finnish National COSPAR, Oct. 30-Nov 1, 2002, Oulu, Finland.

- Damtie, B., Nygrén, T., Lehtinen, M., and Huuskonen, A., Application of mathematical inversion in the analysis of range-ambiguous incoherent scatter radar signals, 10th International EISCAT Workshop, 23-27 July 2001, Tokyo, Japan.
- Lehtinen, M., Markkanen, J., Väänänen, A., Huuskonen, A., Damtie, B., Nygrén, T., Rahkola, J., A new incoherent scatter technique in the EISCAT Svalbard Radar, 10th International EISCAT Workshop, 23-27 July 2001, Tokyo, Japan.
- Damtie, B., Nygrén, T., Lehtinen, M.S. and Huuskonen, A., Phase error analysis in the EISCAT phase modulation scheme, 3-7 September 2000, The University of Warwick, UK.

RESEARCH GRANTS AND OTHER AWARDS

- 147,240.00 US dollars from the World Bank to establish Physics Virtual Laboratory at Bahir Dar University
- 143,878.05 US dollar from the World Bank to strengthen and expand the Graduate Program at Bahir Dar University
- A one year grant of 60,000 Euros from the Academy of Finland to establish an ionospheric monitoring station in Ethiopia(with Dr. Tilmann Bosinger, Dr. Kari Kaila and Dr. Mulugeta Bekele), Dec., 2003.
- Awarded gold from the hands of the president of Bahir Dar University, Dr Shimelis Haile, for the best presentation at the International Conference on Electrical and Computer Engineering (ICECE-2003), Oct. 29-1 Nov., 2003, Bahir Dar University, Ethiopia.
- A researcher position for Ph.D, Finnish Graduate School in Space Physics and Astronomy, Department of Physical Sciences, University of Oulu, Finland.
- A full scholarship for M.Sc., Department of Physics, University of Troms, Norway.
- A 100 birr (Ethiopian currency) and a 3-day sponsored trip to the city of Awassa from the hands of the president of Addis Ababa University, Prof. Mogessie Ashenafi, for an outstanding undergraduate academic performance.