Tiziana Cherubini
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Professional Experience

02/2003 - present **Research Meteorologist** for the Mauna Kea Weather Center (MKWC, http://mkwc.ifa.hawaii.edu). Regular, full time Research Corporation of the University of Hawaii (RCUH) non-civil service position with the Institute for Astronomy, Hawaii.

Duties and responsibilities.

- Conduct research directed at improving meteorological forecast support for astronomical operations.
- Run and maintain an operational weather modelling system, currently the Weather Research and Forecasting model, WRF.
- Run and maintain the data assimilation model, currently the Local Analysis and Prediction System, LAPS.
- Study, implement and validate an optical turbulence algorithm in support of optical turbulence and telescope's seeing prediction.
- Oversee data gathering at the MKWC.
- Oversee maintenance and improvements to the web-based weather data server that provides forecasts and weather data to the user community.
- Supervise the observatory weather forecaster and issue forecasts when the forecaster takes leaves.

11/2001 - 01/2003 **Post-doctoral fellowship** at the Dept. of Meteorology, University of Hawaii.

Duties and responsibilities.

- Development and implementation of data assimilation software.
- Maintenance and improvement of the forecasting system at the Mauna Kea Weather Center.

03/2001 – 06/2001 **Graduate Trainee** in the Operations Department at the European Centre for Medium-range Weather Forecast (ECMWF).

Duties and responsibilities.

- Statistical validation of precipitation forecasts using non-conventional observational data;
- Implementation of the validation algorithms.

Education

1997-2000 University of Genoa, Italy
Doctor of Philosophy in Geophysics/Meteorology

1990-1997 University of Rome, "La Sapienza", Italy
"**Laurea**" in Physics (*summa cum laude*)

Publications

Cherubini, T., S. Businger, and R. Lyman, 2009: An operational perspective for modeling optical turbulence. Book on Seeing: The Measurement and Impacts of Atmospheric Turbulence and Refractivity on the Propagation of Extraterrestrial Radiation. *At proofing stage.*

Cherubini, T., S. Businger, and R. Lyman, 2008: Modeling turbulence and seeing over Mauna Kea: Algorithm Refinement. J. of Applied Meteorology and Climatology, 47, 3033-3043.

Cherubini, T., S. Businger, and R. Lyman, and M. Chun, 2008: Modeling turbulence and seeing over Mauna Kea. Journal of Applied Meteorology and Climatology, 47, 1040-1155.

Foster, J., B. Brooks, T. Cherubini, C. Shacat, S. Businger, and C. L. Werner, 2006, Mitigating atmospheric noise for InSAR using a high resolution weather model, Geophys. Res. Lett., 33, L16304, doi: 10.1029/2006GL026781.

Cherubini, T., S. Businger, C. Velden and R. Okasawara, 2006: The Impact of Satellite-Derived Atmospheric Motion Vectors on Mesoscale Forecasts over Hawaii. Mon. Wea. Rev., 134, 2009-2020.

Ferretti, R., T. Paolucci, G. Giuliani, and T. Cherubini, 2003: Verification of high-resolution real-time forecasts over the Alpine region during the MAP SOP. Q. J. R. Meteorological Soc., 129, 587-607.

Cherubini, T., A. Ghelli and F. Lalaurette, 2001: Verification of precipitation forecasts over the Alpine region using an high-density observing network. Weather and Forecasting, 17, 238-249.