Abstract. I will review approaches for modeling non-stationary spatial correlation, where the spatial dependence of a spatial process depends not only on Euclidean distance between spatial locations. Much of the talk will concentrate on the deformation approach for estimating non-stationary covariances, and computational issues.

Wendy Meiring is an Associate Professor in the Department of Statistics and Applied Probability at the University of Californian, Santa Barbara. Her research focuses on environmental statistics, the evaluation of geophysical models, space-time estimation, and functional data analysis for the study of environmental and ecological processes. Recent publications have explored oscillations and time trends in stratospheric ozone levels, the space-time analysis of ground-level ozone data, applications of generalized linear models, and the identification of non-stationary spatial structures. Meiring’s Ph.D. is in statistics from the University of Washington and she completed a postdoc at the National Center for Atmospheric Research in Boulder, Colorado.