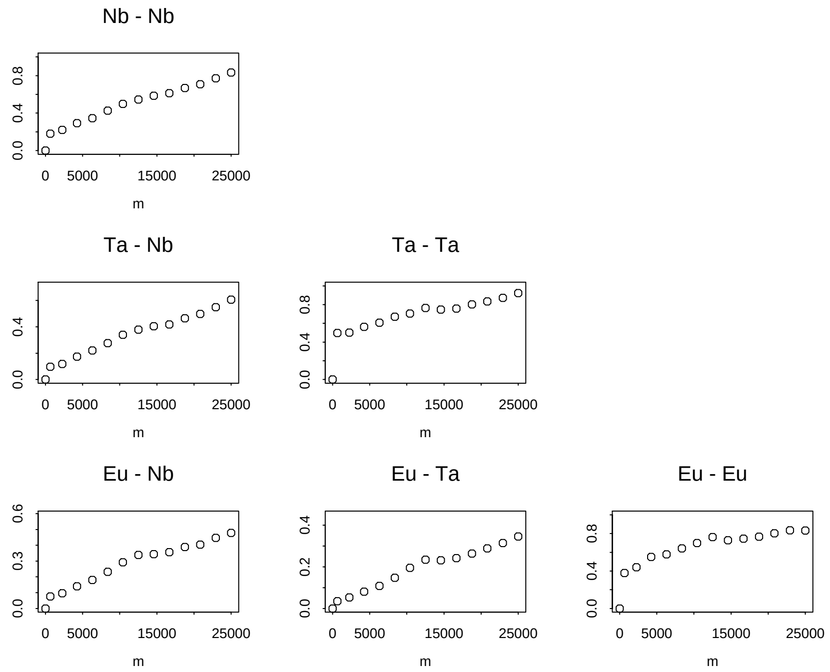

Figure 1.13: Cross-semivariograms for Nb, Ta and Eu

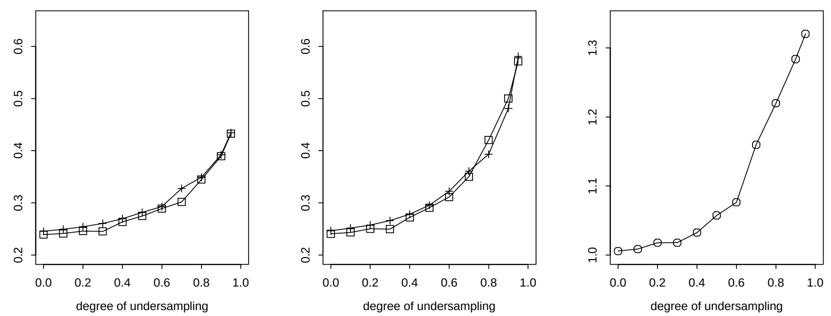

Figure 1.14: Estimation variances as functions of undersampling, left: cokriging, center: separate kriging, right: ratio of empirical variances of separate kriging and cokriging; square: kriging variance, cross: empirical variance

variance constitutes only 56% of the increment of the empirical separate kriging variance.

Figure 1.14 also shows that the kriging variance is a reliable estimate of the estimation variance.

Figures 1.15, 1.16 and 1.17 (north is to the left) show separately kriged Nb (no undersampling), separately kriged Nb (90% undersampling), and cokriged Nb (90% undersampling). The area shown is 321×211 km^2. The krigings in the undersampled cases were performed using all first, second, third and fourth order Delaunay neighbors. It is seen that the structures in the no undersampling case are best preserved by cokriging.

The results obtained have important practical implications for future mapping and exploration projects, namely the possibility of saving an important percentage of sampling and analysis. This translates directly into mapping and exploration cost savings.