# KINEMATIC INDICATORS AND TRANSPORT DIRECTION IN THE VARGINHA REGION, SOUTH OF SÃO FRANCISCO CRATON, SOUTHEASTERN BRAZIL

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The focused area crosscuts most of the several units compounding the nappe system. The southeastern Socorro-Guaxupé Nappe shows a low- to medium-dip (8º-52º) foliation organised according to NW and generated mainly by deformation. It is associated to a strong mineral/stretching lineation (medium N256º). Main kinematic indicators (asymmetric folds, oblique foliation) indicate a shear sense towards ENE/E. To the Northeast the Três Pontas-Varginha Nappe and the Carmo da Cachoeira Nappe possess a main foliation characterised by compositional/textural/granulometric differences inherited from sedimentary layering and masked by a low-angle mylonitic foliation. The former shows a NW/SE foliation and mineral/stretching lineations with medium values of N263º. Ductile/ruptile kinematic indicators (S-C pairs, asymmetric pressure shadows) show a top displacement towards ENE/E. For the later the mineral/stretching lineations (medium N237º) are associated to a top movement towards NE. A narrow strip of quartzites and phyllitic schists represents the underlying unity in which mineral/stretching lineation is associated to the axes of open folds oriented either NE or NW. The main foliation is a differential layering superposed by a low-angle mylonitic foliation which has generated the reorientation/stretching/grain-size reduction of quartz/mica. Kinematic indicators (oblique undulose extinction of quartz grains, S-C and C' surfaces) reveal a shear sense towards NE/ENE. Low-grade micaceous quartzites and schists occur as a thick sequence tectonically settled onto the northern basement (São Francisco Craton) and show a polyphasic deformation history. Mineral/stretching lineations and sheet/tubular folds give a top transport direction towards N/NNW.