MSc thesis (Geochronology)

Timing of podzolisation in alpine to temperate regions



Podzolisation is a common soil evolutional process in usually cool to cold, moist and acidic environments. The mechanisms of podzolisation are known, however not their timing. To unravel better the timing and duration of podzolisation, Podzols having a high Fe-content will be analysed. The recrystallisation and precipitation of Fe-oxyhydroxides and their magnetization will be used to date this process. The time constraints will be obtained by using archaeomagnetic dating.

Besides archaeomagnetic dating (that will be done during a stay at the University of Torino), the samples will be analysed for their total elemental contents (XRF), oxalate- and dithionite-extractable contents (Fe, Al, Mn), organic and inorganic carbon, nitrogen, organic matter fractions (grain size fractions) and functional groups of organic matter (by using DRIFT).

The thesis can start anytime and will be supervised by:
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