PROJECT: CLARITY: Technologies for Reliable Ambiguity Resolution and Integrity in High Accuracy Positioning

SCIENTIFIC DIRECTOR: V. Gkikas

DURATION (MONTHS): 18 months

DEPARTMENT: Department of Topography

FINANCIER: European Space Agency

DESCRIPTION: CLARITY project deals with the fundamental problem of phase integer ambiguity resolution (IAR) in satellite positioning. Contrary to the state-of- the-art methodology (float estimation, decorrelation and integer least squares) the program applies artificial intelligence principles to approach the problem. Particularly, considering that IAR is a problem asking for optimization, we rely on intelligent computation (metaheuristics) principles to build-up a tailored but universal framework solution whilst looking for approaches that focus on multi-frequency and multi-system scenarios.