



GSP

G E O S P R I N G

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About

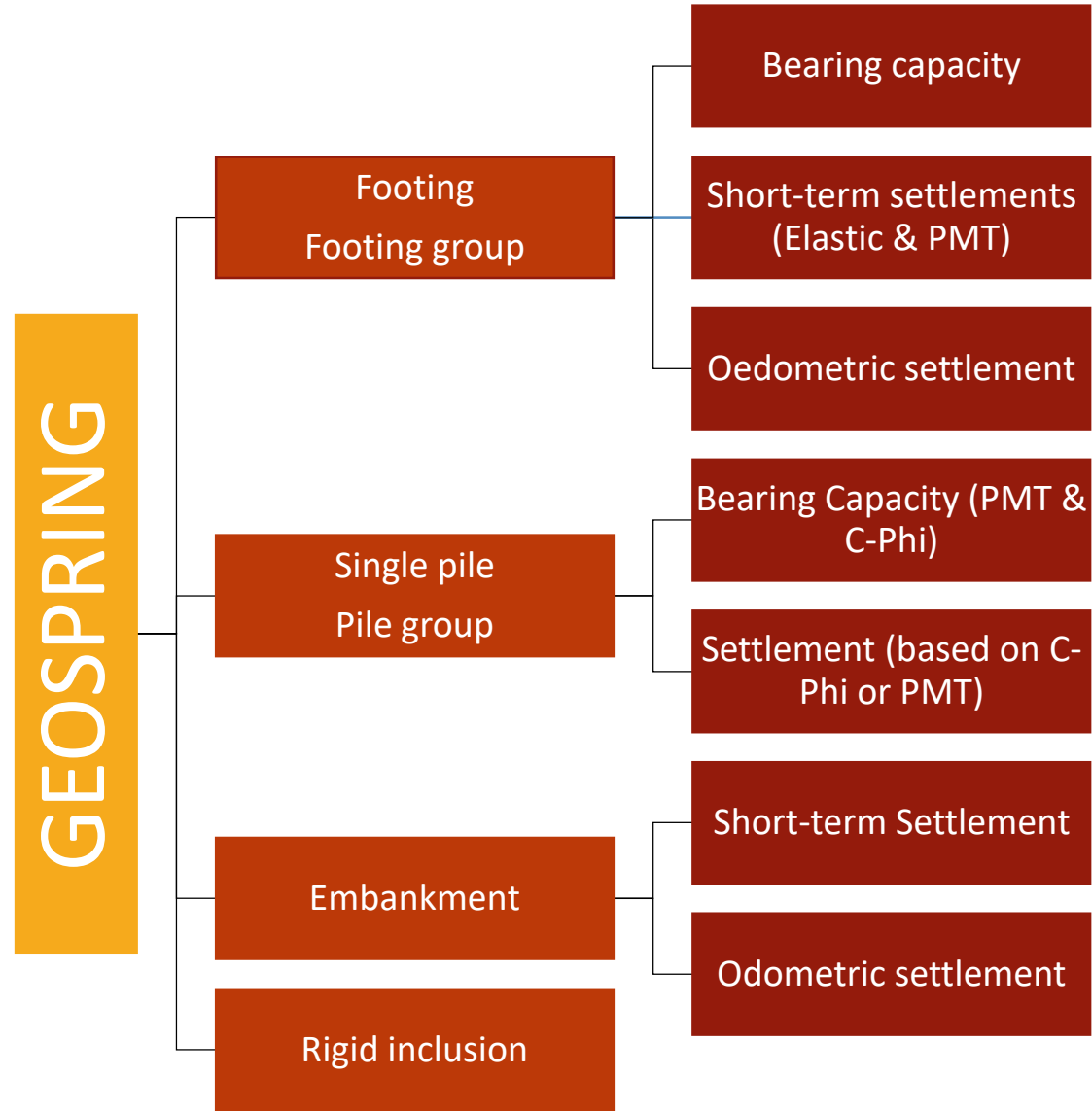
GeoSpring 1.0 is a software tool allowing engineers and academics the design of shallow and deep foundations for structures such as buildings, bridges and roads.

The development of such a product has been started by Wafy BOUASSIDA (Phd, M.Sc, P.Eng) since 2015.

GeoSpring offers for its users the following features :

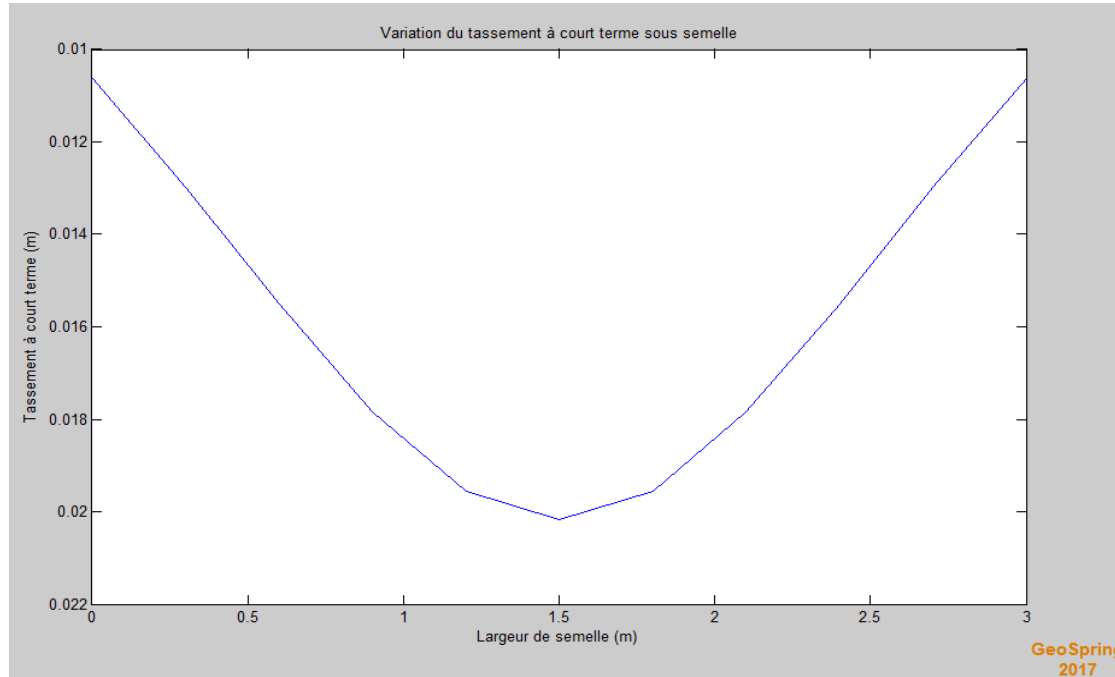
- **Bearing capacities of shallow foundations using yield parameters (Cohesions and friction angles/ Hansen Method/ EC7)**
- **Bearing capacities of shallow foundations using pressuremeter parameters**
- **Short-term settlement of shallow foundations using the pressuremeter method**
- **Short-term settlement of shallow foundations using the elastic method**
- **Settlement of shallow foundations using shear wave velocities**
- **Settlement of shallow foundations using the oedometric method**
- **Bearing capacities of single piles (Bored-Driven-CFA or RIT) using the pressuremeter method**
- **Bearing capacities of single piles (Bored-Driven-CFA or RIT) using the C- Φ method (EC7)**
- **Bearing capacities of pile groups (Bored-Driven-CFA or RIT)**
- **Single pile settlements using load transfer methods (cubic root curves / Frank & Zhao)**
- **Pile group settlement using the load interaction factor method**
- **Pile group settlement using the equivalent pier method**
- **Design of Rigid Inclusions**

 **GeoSpring
modules**



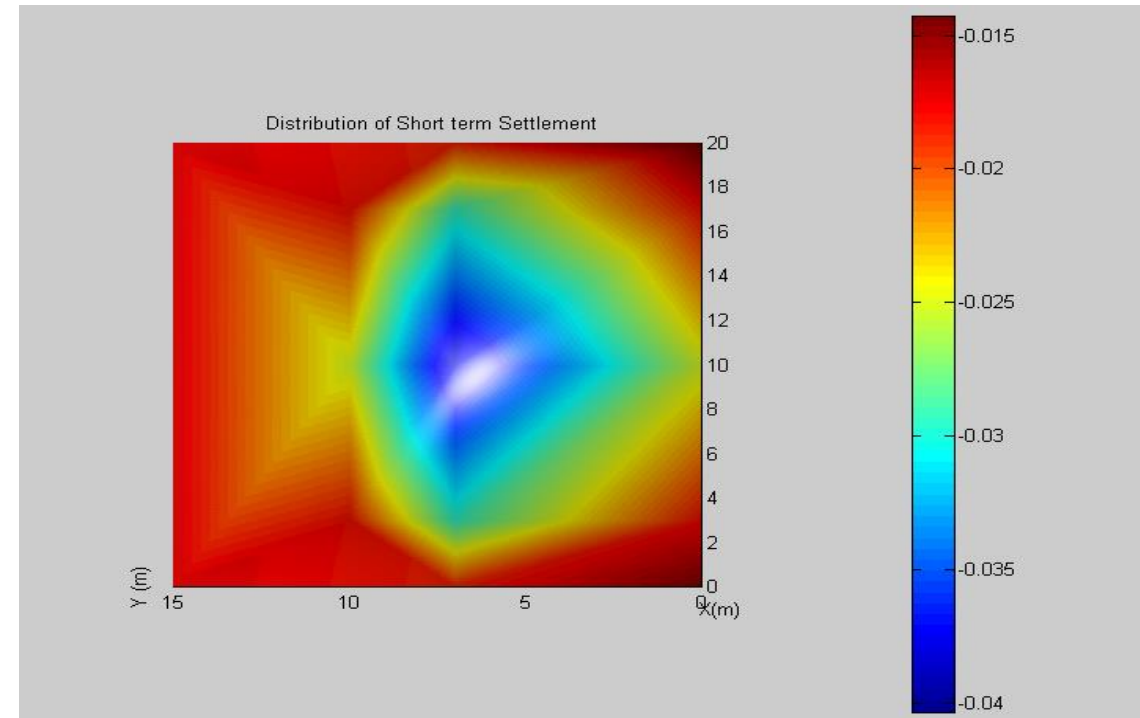


GeoSpring Outputs



Short-term settlement along the width of an isolated footing

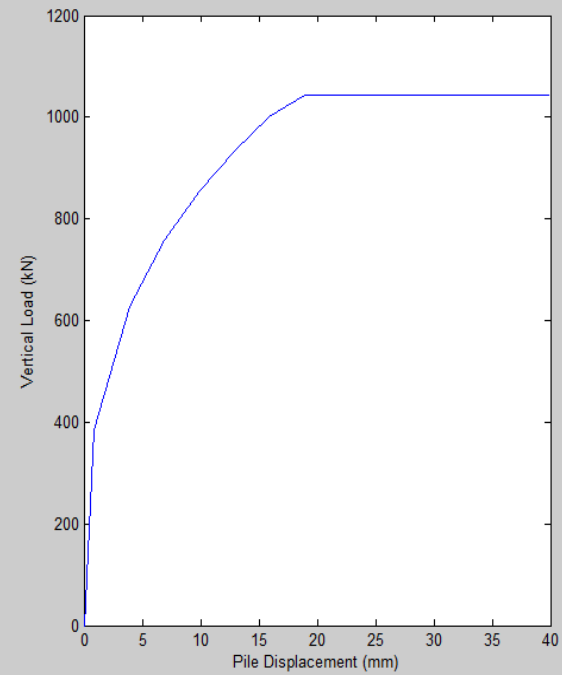
Short-term settlement contours of footings group





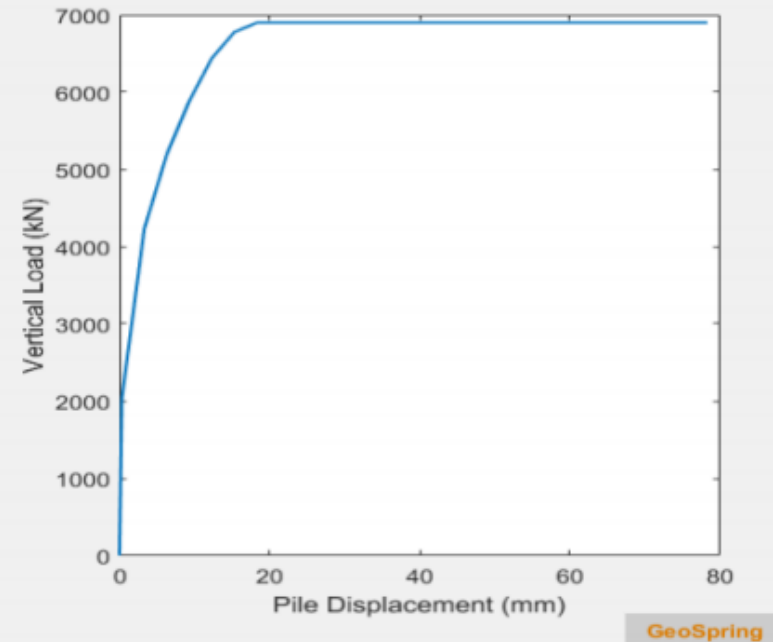
GeoSpring Outputs

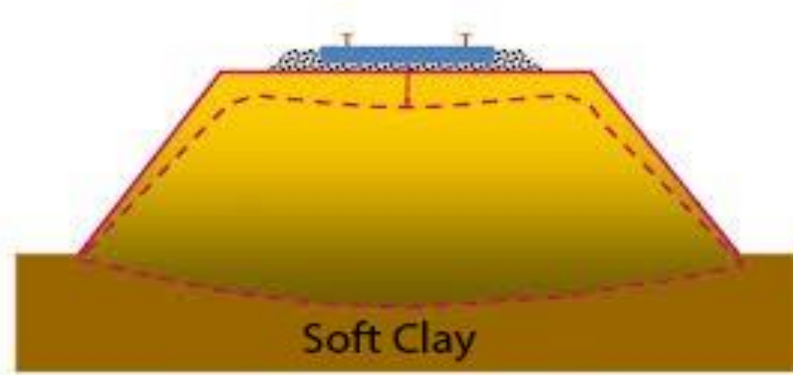
Load (kN)	Pile Settlement (mm)
0	0
384.2185	0.9000
626.3571	3.9000
757.5527	6.9000
854.4238	9.9000
933.2343	12.9000
1.0006e+03	15.9000
1.0427e+03	18.9000
1.0427e+03	21.9000
1.0427e+03	24.9000
1.0427e+03	27.9000
1.0427e+03	30.9000
1.0427e+03	33.9000
1.0427e+03	36.9000
1.0427e+03	39.9000



Single pile settlement

Pile group settlement

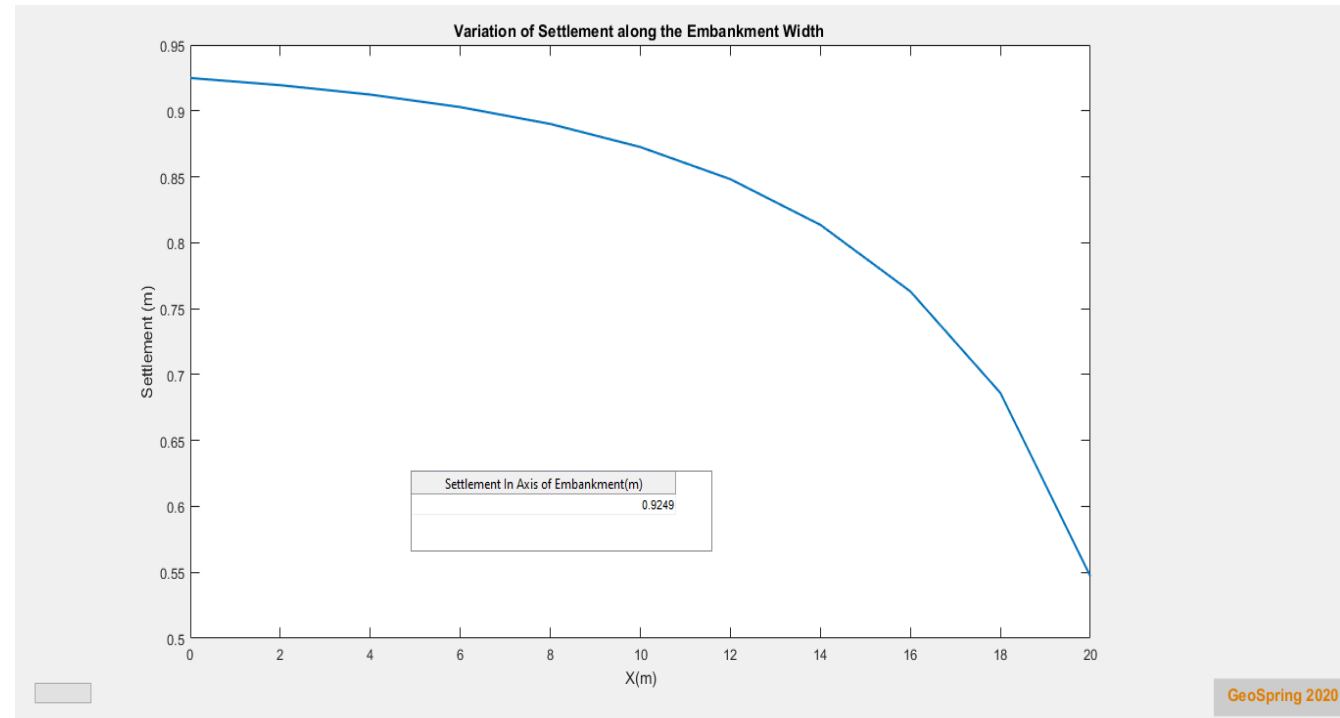




Settlement of embankments

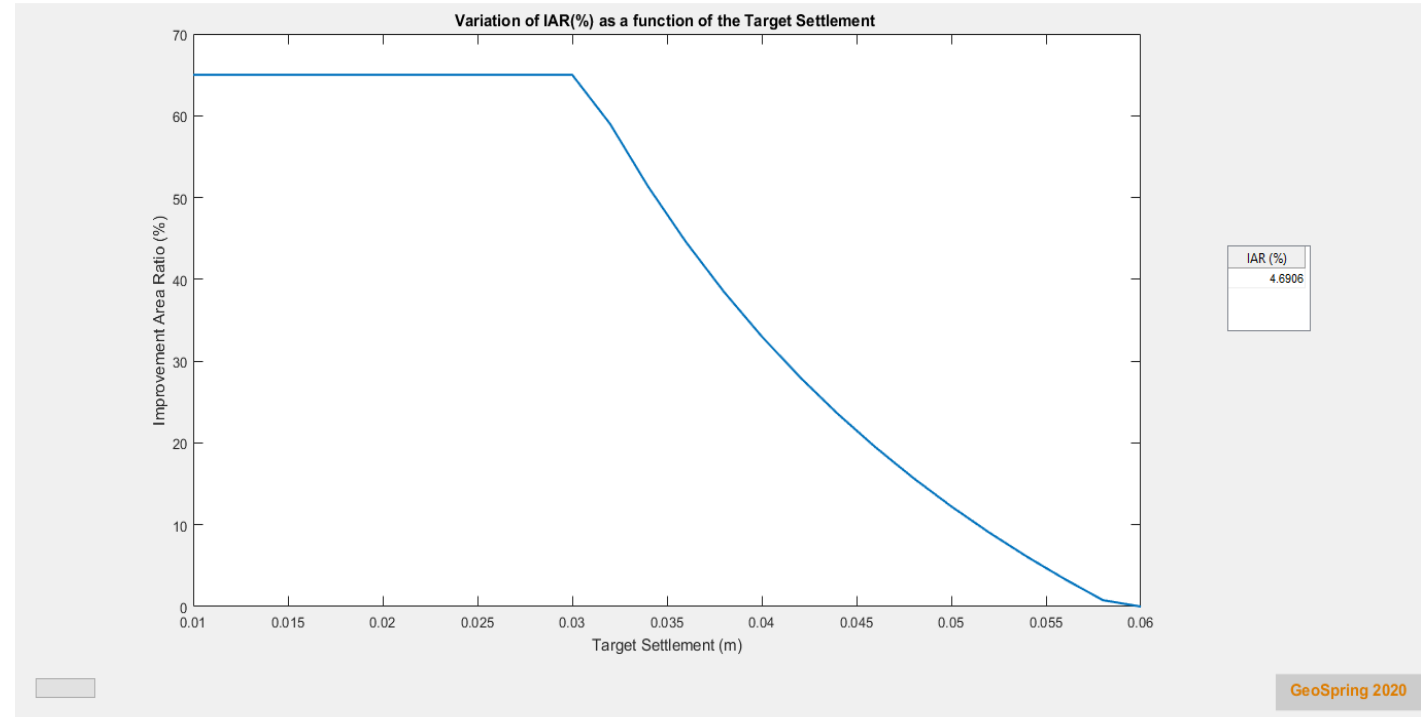
GeoSpring Outputs

Variation of long term
settlement along the
embankment width





GeoSpring Outputs



**Design of rigid
inclusions**

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