ITERATIVE CLOSEST POINT

$$\min_{i \in ISO(\mathbb{R}^3)} d_H(i(X), Y)$$

$$\min_{i \in ISO(\mathbb{R}^3)} \max_{x \in X} d(i(x), Y) = \min_{i \in ISO} \max_{x \in X} \|i(x) - y\|_2$$

- i^0 initialization
- compute $N(i)$ NEAREST NEIGHBOURS $\arg\min_{y \in Y} \|i(x) - y\|_2$
- i^{t+1} = ICP calculus
- Repeat

IT OUTPUT (i^t) → RIGID TRANSFORMATION, CORRESPONDENCE

- local optima (GOOD i^0)