Regression, Robustness, Imprecision, and "Trust"

Some ideas on imprecise regression

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Imprecision as Lack of Trust

Notion 1:

<div align="center">

Imprecision

in regression arises as a consequence of

lack of trust

into (some part of) the data at hand.

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Imprecise Vision

A bright and sunny day in São Paulo....

Imprecision as Design-Sensitivity

Notion 2:

<div align="center">

Imprecision

in regression reflects the

sensitivity to changes of design (-weights)

of the regression problem under consideration.

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References

Rousseeuw & Leroy (1987). Robust Regression and Outlier Detection. John Wiley, New York.

Einbeck & Augustin (2008). On design-weighted local fitting and its relation to the Horvitz-Thompson estimator. *Statistica Sinica*, to appear.