Tutorial on the R package ReplicationSuccess

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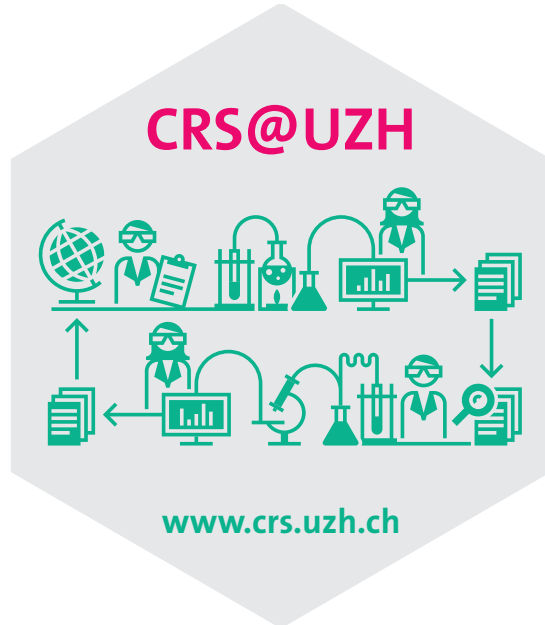

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Installation

```
install.packages("ReplicationSuccess",
                 repos = "http://R-Forge.R-project.org")
```

Replication studies

General things about replication studies / Replication crisis

Data sets / examples

Show examples

Criteria for replication success

– Discuss different criteria for replication success – Discuss problems: Inflation, shrinkage, heterogeneity

Design of replication studies

– Discuss sample size calculation important and depends on analysis strategy – Discuss what was done in projects – Ad hoc shrinkage

Statistical framework of package

– normality assumption – relative quantities – DesignPrior: Predictive and conditional

Significance

– powerSignficance + arguments – sampleSizeSignificance + arguments – exercises

Comparison of effect size

– predictionInterval – sampleSizePI – sampleSizePIwidth

Reverse Bayes

– pSceptical – powerReplicationSuccess – sampleSizeReplicationSuccess

Outlook

– Interim – Heterogeneity – EB shrinkage

References

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