

## **On a general theory for bootstrap-based hypothesis testing**

We propose a bootstrap testing framework for a general class of hypothesis testing problems. This allows for resampling under the null as well as other forms of bootstrapping (not necessarily under the null).

In both cases, the bootstrap-based tests are asymptotically exact and consistent against all fixed alternatives. We show that the local limiting power function is the same for both types of resampling.

We apply this framework on several examples to demonstrate its versatility: independence test, test on the coefficients in linear regression models, goodness-of-fit test for general parametric models and for semiparametric copula models with pseudo-observations.

Joint work with Alexis Derumigny, Miltos Galanis and Aad van der Vaart