Dependent wild bootstrap for degenerate U- and V-statistics

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(joint work with Anne Leucht, TU Braunschweig)

Many important test statistics can be rewritten as or approximated by degenerate von Mises-(V-)statistics. In the first part, I will review new results on the asymptotic behavior of degenerate V- and related U-statistics under ergodicity or weak dependence.

To set critical values for tests, bootstrap methods are an important tool whenever the distribution of a given test statistics cannot be determined analytically. I will introduce a new variant of a dependent wild bootstrap and sketch the proof of its consistency.

Literature:

- Leucht, A. & Neumann, M.H. (2011). Degenerate U- and V-statistics under ergodicity: Asymptotics, bootstrap and applications in statistics. *Reports of the Department of Mathematics and Computer Science, Friedrich Schiller University Jena* **11-01**.
- Leucht, A. & Neumann, M.H. (2011). Dependent wild bootstrap for degenerate U- and V-statistics, Manuscript.