

# Profile analysis for a growth curve model

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In this talk, we consider profile analysis of several groups where subvectors of the mean vectors are equal. This leads to a profile analysis in a growth curve model. The likelihood ratio statistics are given for the three hypotheses known in literature as parallelism, level hypothesis and flatness. Furthermore, exact and asymptotic distributions are given in the relevant cases.

## References

- [1] Ohlson, M., Srivastava, M. S. (2010). Profile analysis for a Growth Curve Model. *Journal of the Japan Statistical Society* **40**(1), 1–21.
- [2] Srivastava, M. S. (1987). Profile analysis of several groups. *Communications in Statistics - Theory and Methods* **16**(3), 909–926.