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Credible sets in nonparametric regression

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$$\begin{aligned} \text{Var}(R(\hat{s})) &= \frac{1}{n^2} \sum_{i=1}^n \sum_{j=1}^n f_i''(t_j) f_j''(t_i) \frac{\lambda_i^2}{\lambda_i^2 + \lambda_j^2} \\ &\leq \frac{1}{n^2} \sum_{i=1}^n \sum_{j=1}^n f_i''(t_j) f_j''(t_i) \frac{\lambda_i^2}{\lambda_i^2} = \frac{1}{n^2} \sum_{i=1}^n \lambda_i^2 f_i''(t_i)^2 \\ &\leq \frac{1}{n^2} \sum_{i=1}^n \lambda_i^2 \left(\frac{\lambda_i}{\lambda_i + \lambda_j} \right)^2 f_i''(t_i)^2 \leq \frac{1}{n^2} \sum_{i=1}^n \lambda_i^2 f_i''(t_i)^2 = \frac{1}{n^2} \sum_{i=1}^n D_1(c_i) \end{aligned}$$

$$\begin{aligned} \text{Var}(R(\hat{s})) &\leq \frac{1}{n^2} \sum_{i=1}^n D_1(c_i) \leq \frac{1}{n^2} \sum_{i=1}^n C_2 V_{c_i}^2 \leq C_2 \sqrt{n} V_{\hat{c}_n} \\ \text{Var}(R(\hat{s})) &\leq C_2 \sqrt{n} V_{\hat{c}_n} \quad \text{reduzieren?} \end{aligned}$$

$$C_2 = \alpha \beta \sigma^2 = \frac{\alpha \beta}{n^2} \sum_{i=1}^n D_1(c_i)$$

$$\hat{c}_n = \hat{c}_n$$

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