Agenda for Meeting Jan 22, 2021

**Objective:** Developing a set of class notes for EXST 7160 Advanced Statistical Inference I.

1. **Tools:**
2. Need a template and setting to write Slides using LaTeX. B)
3. MiKTex or what else.
4. Should we use LaTeX of pdflatex?
5. What documentclass: powersem, slides, powerdot, beamer, something else?
6. We would benefit from a github repository.
7. Use BibTex or BibLaTex?
8. **Course Content:**
9. Based on Essential Statistical Inference, Boos and Stefanski, 2013.
10. We need some material related to modern statistical inference. That is, statistical theory related to: SVM; Random Forest; Boosting; Model Selection when there is a large selection process; Simultaneous Confidence intervals. Perhaps starting taking a look to Computer Age Statistical Inference by Efron and Hastie, 2016, Cambridge University Press.
11. Need a draft for the Outline.
12. **Some Topics to Cover**

* A quick review of concepts and notation to be used.
* Chapter 2: Likelihood construction and estimation.
* Chapter 3: Likelihood based confidence regions (ignore topics on testing).
* Chapter 4: Bayesian Inference
* Chapter 5: Large Sample Theory: The Basics
* Chapter 6: Large Sample Theory for Likelihood-Based Methods
* Skip Chapter 7: M-Estimation
* Skip Chapter 8: Hypothesis Test Misspecification
* Chapter 9: Monte Carlo Simulation Studies
* Skip Chapter 10: Jacknife
* Chapter 11: Bootstrap