CPSC 547 – Visualization Project Pitch

Rodrigo Silva Conceição
rckrebs@mail.ubc.ca
MSc. in Animal Reproduction and Health Program

Automated activity sensors to unravel dairy cow’s biology

- Measure activity – Steps, lying time, eating time and rumination
- Largely used in Canada for estrus detection as a reproductive technology
Estrus behavior

- Natural behavior
- Standing to be mounted
- Mounting others
- Restless
  - Significantly more active
Automated monitor activity during estrus
Automated monitor activity during estrus
Objectives

• Assess if there is patterns of estrous expression
• Assess if there is patterns through estrous cycles of an animal
  • Potentially across multiple lactations

Future objectives
• Determine if this patterns are biologically meaningful
• Potentially improve what we define as better quality of estrous
Dataset available

• Modified dataset – Containing only the estrous events using activity index from the company
  • Data from 2017 – 2021
  • Already available

• Raw dataset – Based on company backups with continuous activity
  • Higher level of detail on the activity
  • Not fully available – Some information from 2021 and 2022
Thank you!

Have a nice day