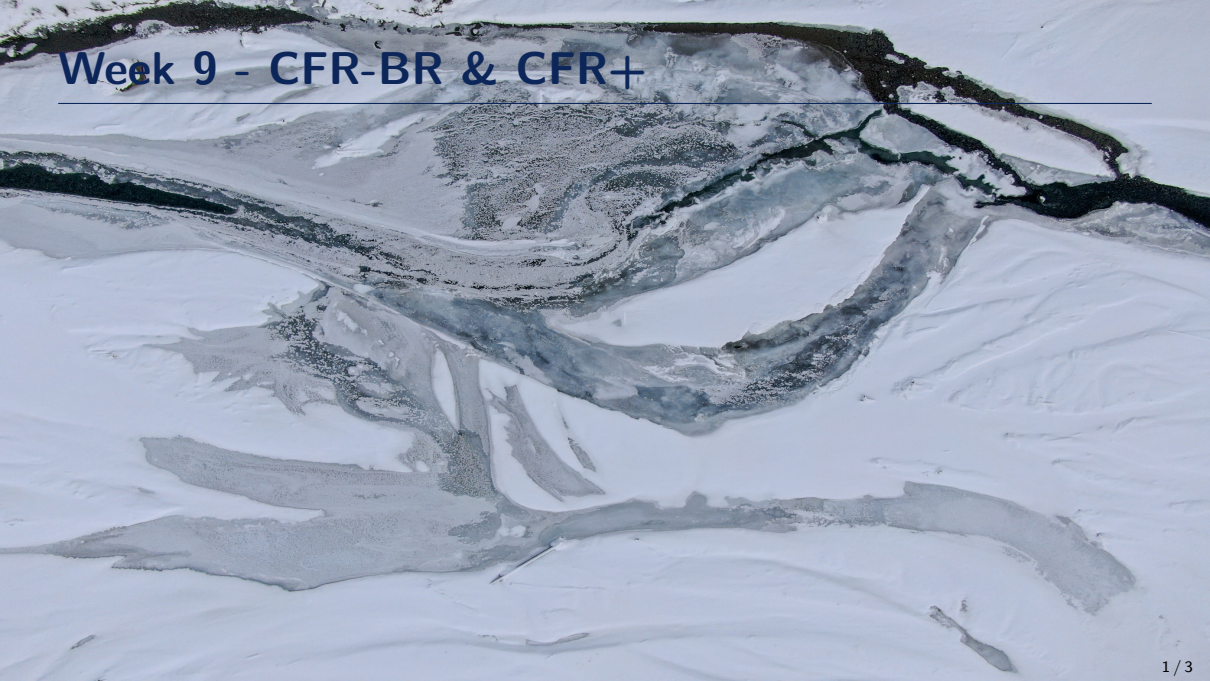


Week 9 - CFR-BR & CFR+



Week 9 Homework

This week, your task is to implement:

- the CFR-BR algorithm [1]
- the CFR+ algorithm [2]

Both algorithms can be implemented by appropriately modifying your existing CFR implementation. Once implemented, plot the exploitability of the sequence of average strategy profiles produced by the algorithm in Kuhn Poker and compare it to the algorithms from previous weeks.

References

- [1] Michael Bradley Johanson et al. “Finding Optimal Abstract Strategies in Extensive-Form Games”. In: *AAAI Conference on Artificial Intelligence*. 2012.
- [2] Oskari Tammelin. “Solving Large Imperfect Information Games Using CFR+”. In: *ArXiv abs/1407.5042* (2014).
- [3] Neil Burch. “Time and Space: Why Imperfect Information Games are Hard”. PhD thesis. University of Alberta, 2018.
- [4] Neil Burch, Matej Moravčík, and Martin Schmid. “Revisiting CFR+ and Alternating Updates”. In: *ArXiv abs/1810.11542* (2018).