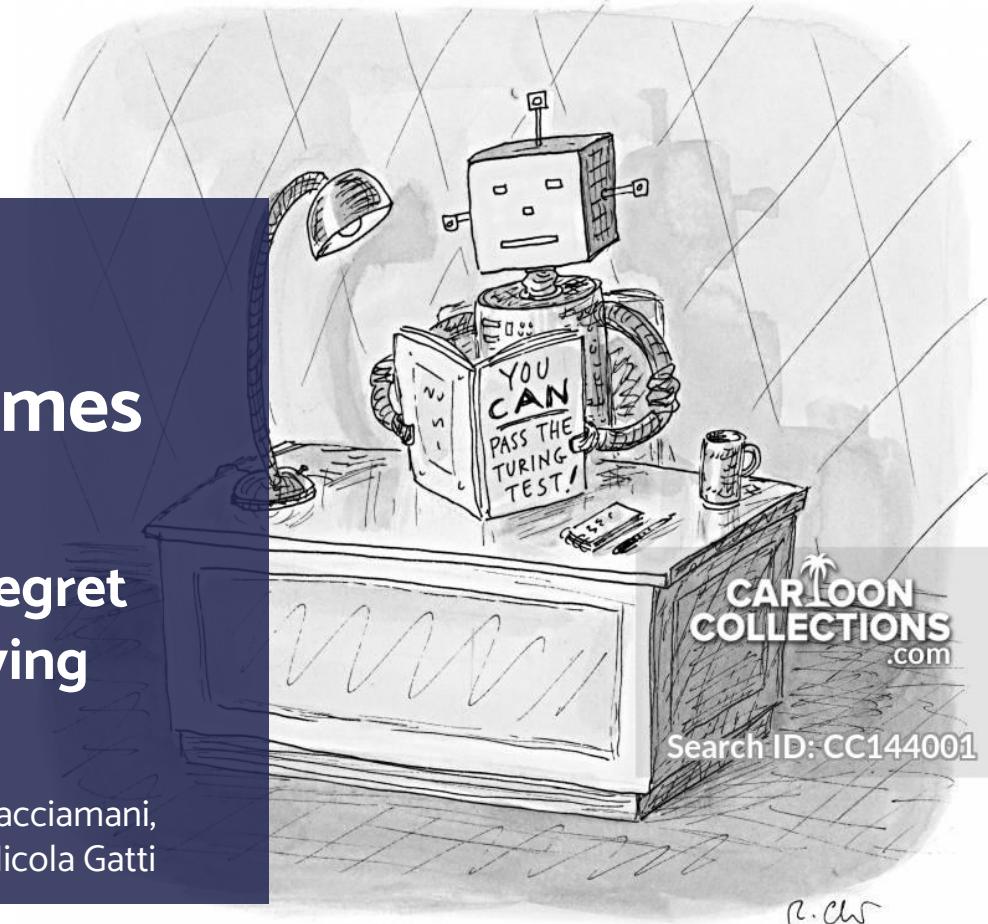


A Marriage between Adversarial Team Games and 2-player Games: Enabling Abstractions, No-regret Learning, and Subgame Solving

Luca Carminati, Federico Cacciamani,
Marco Ciccone, Nicola Gatti



ADVERSARIAL TEAM GAMES:

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Team vs Team scenario
- **Ex-ante correlation**
i.e. free communication before the start
- **TMEcor = Team-Maxmin with correlation**
Finding a TMECor is a **NP-hard** problem

Applications



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OUR IDEA:

- **Explicit Representation of a Coordinator prescribing an action for the current player**

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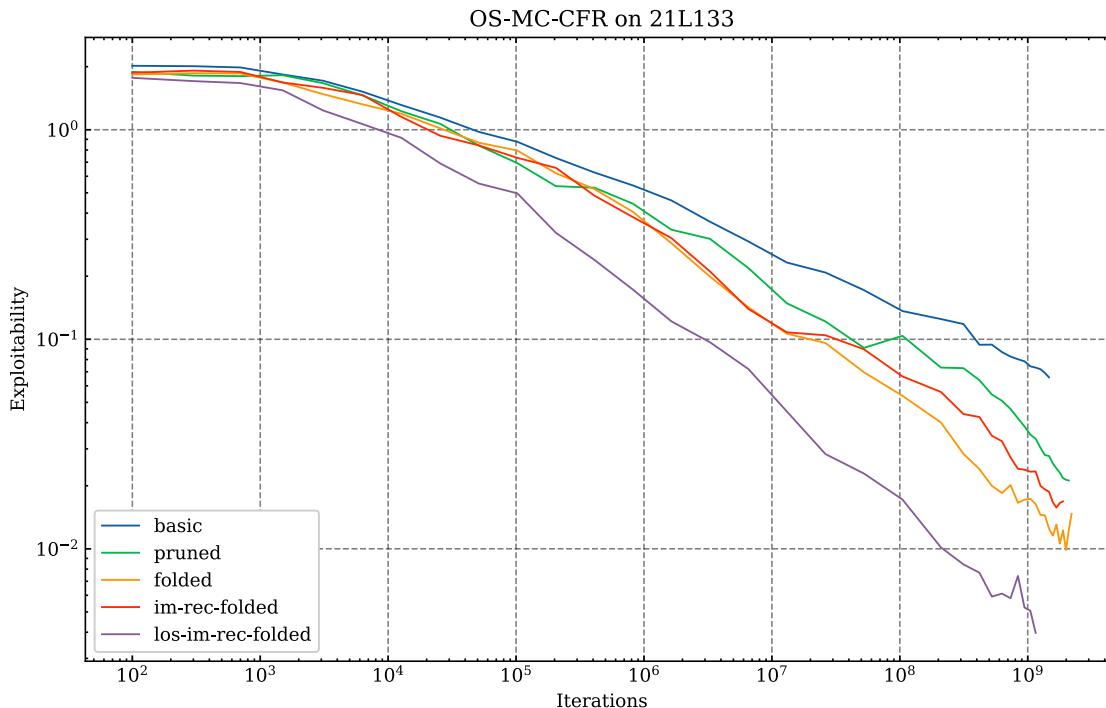
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+ 2p0s game + Pruning possibilities

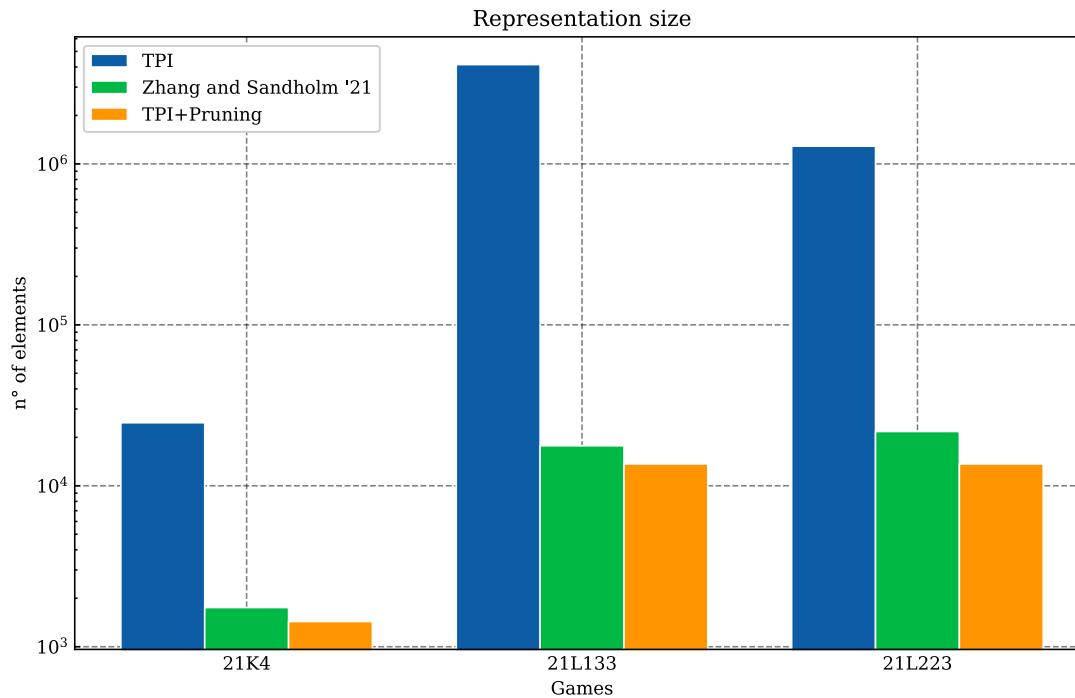
Still Exponentially larger due to NP-Hardness

EXPERIMENTAL RESULTS - Convergence



We can find a TMEcor using traditional 2p0s techniques

EXPERIMENTAL RESULTS - Size of Representation



CONCLUSION: we provide a COMPACT and INTERPRETABLE representation

**Thank you for your attention!
Feel free to contact us!**

Hall E #1224 – 6pm

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