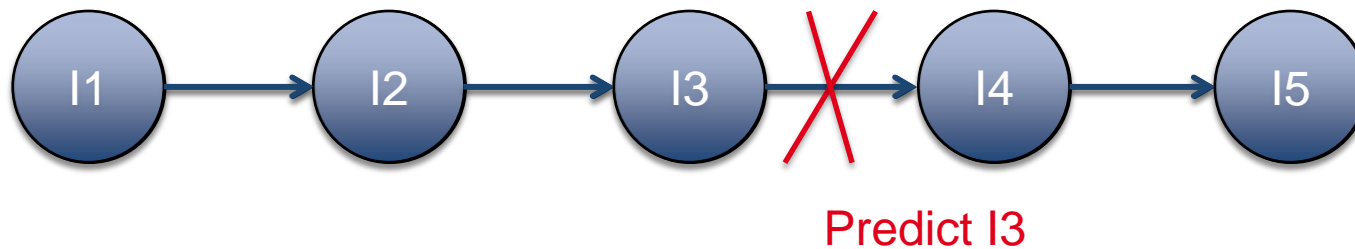


# **EOLE: Paving the Way for an Effective Implementation of Value Prediction**

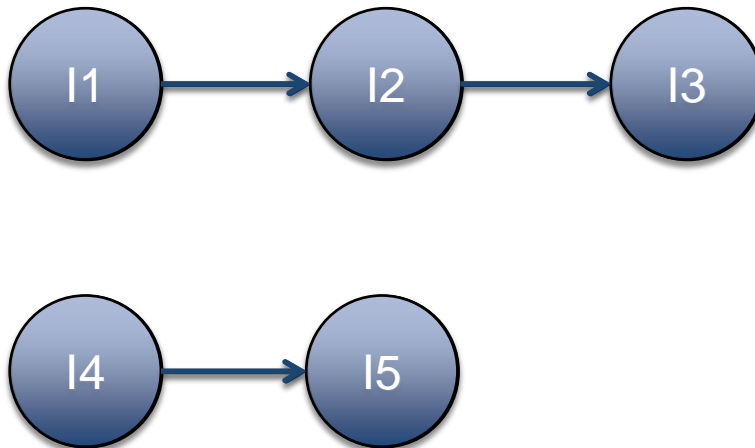
**Arthur Perais & André Seznec**

# Value Prediction (VP) [Lipasti96][Mendelson97]

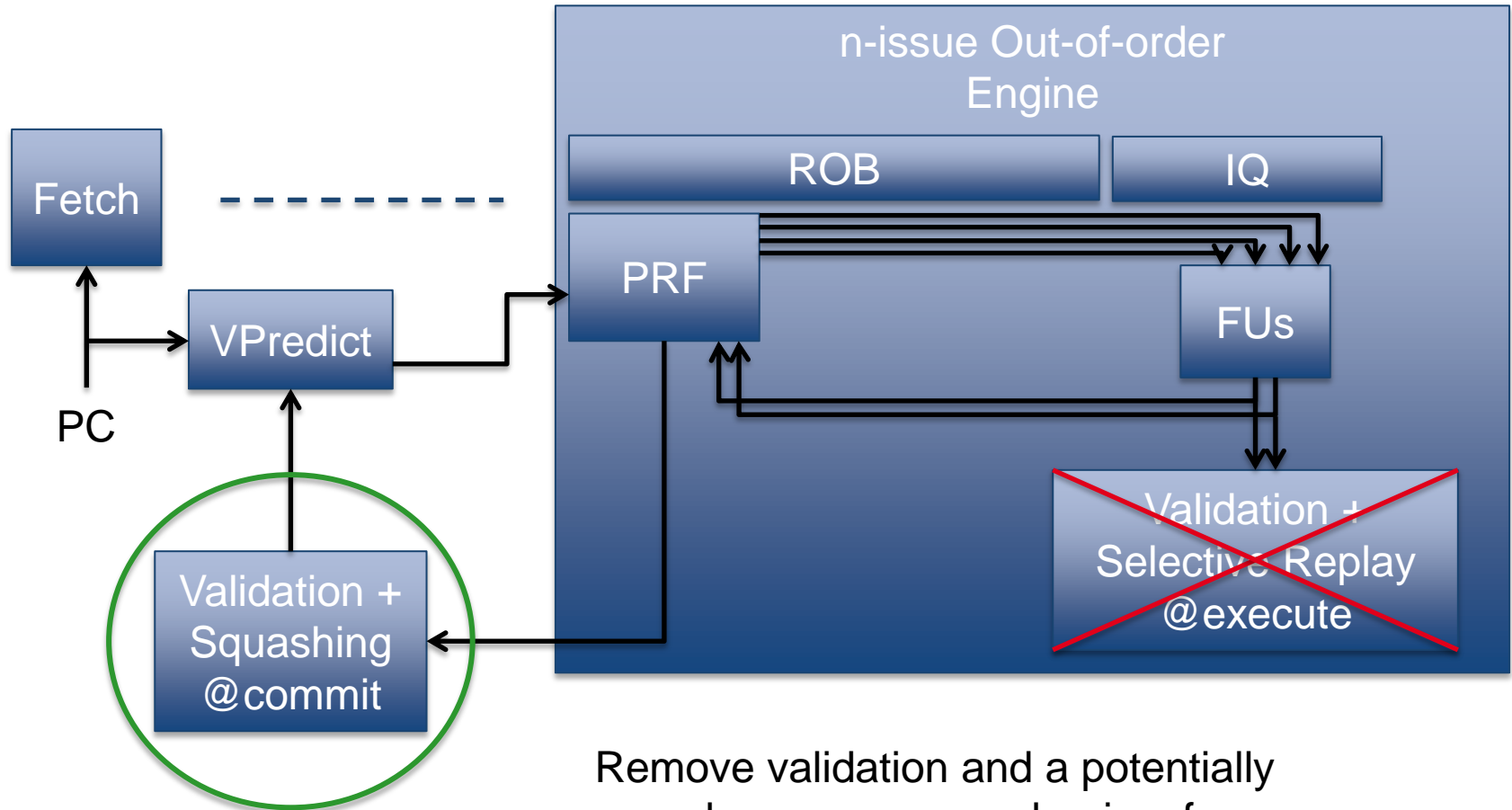
Sequential execution: Low ILP ☹️



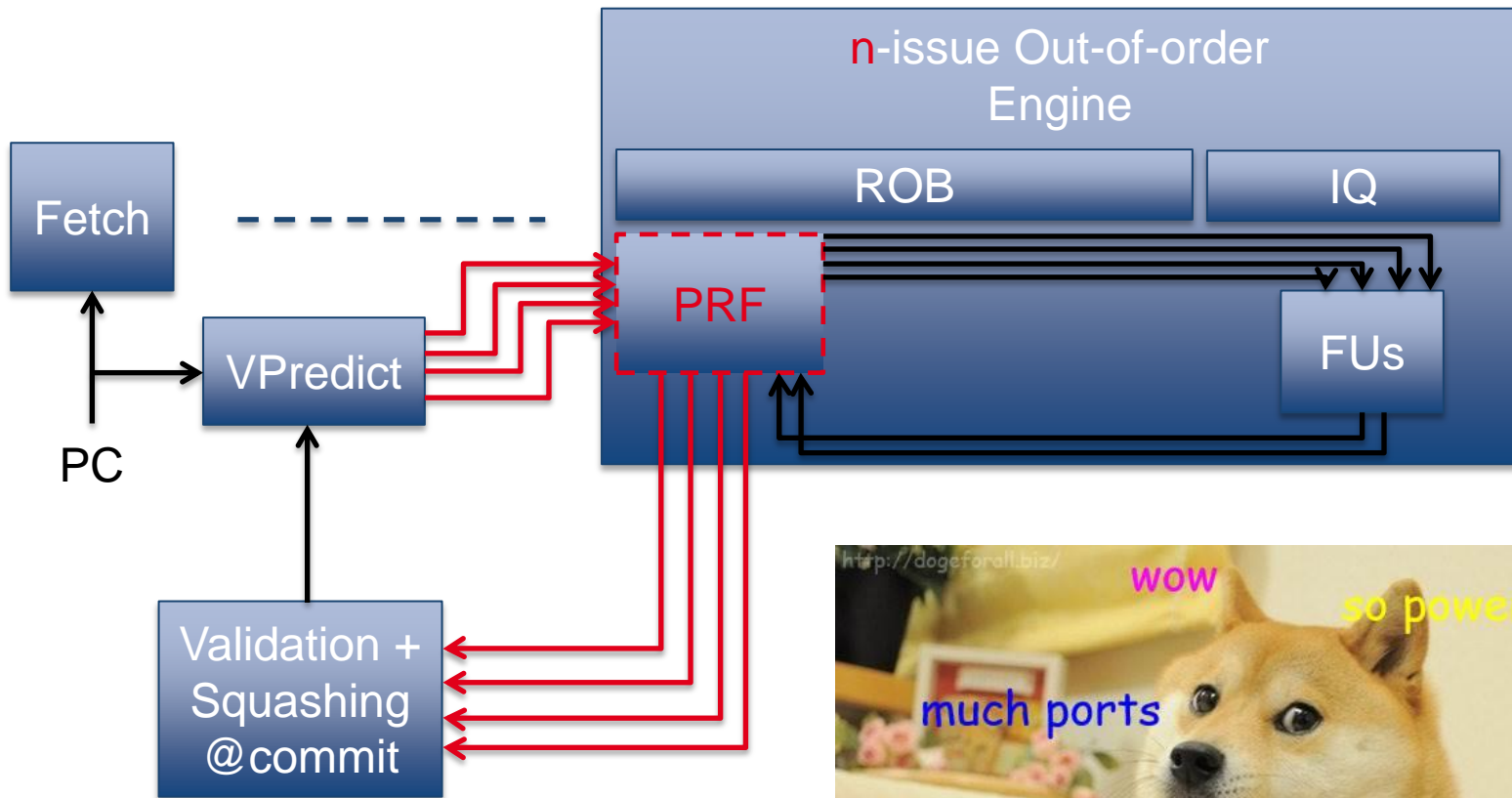
Parallel execution: High ILP 😊



# State-of-the-art Value Prediction: HPCA'14

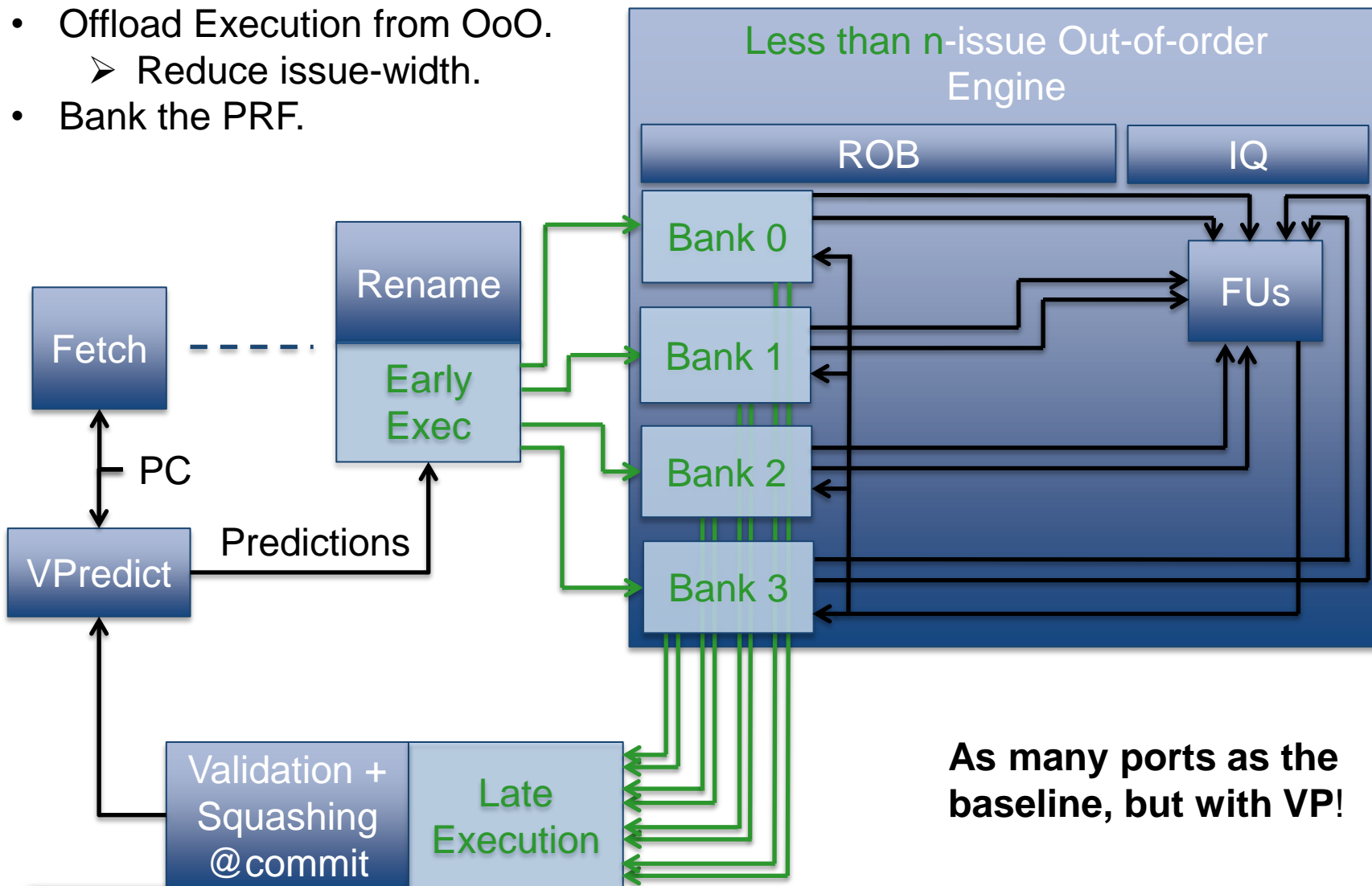


# State-of-the-art VP and the Physical Register File



# {Early | OoO | Late} Execute to Relieve Pressure

- Offload Execution from OoO.
  - Reduce issue-width.
- Bank the PRF.



**As many ports as the baseline, but with VP!**