

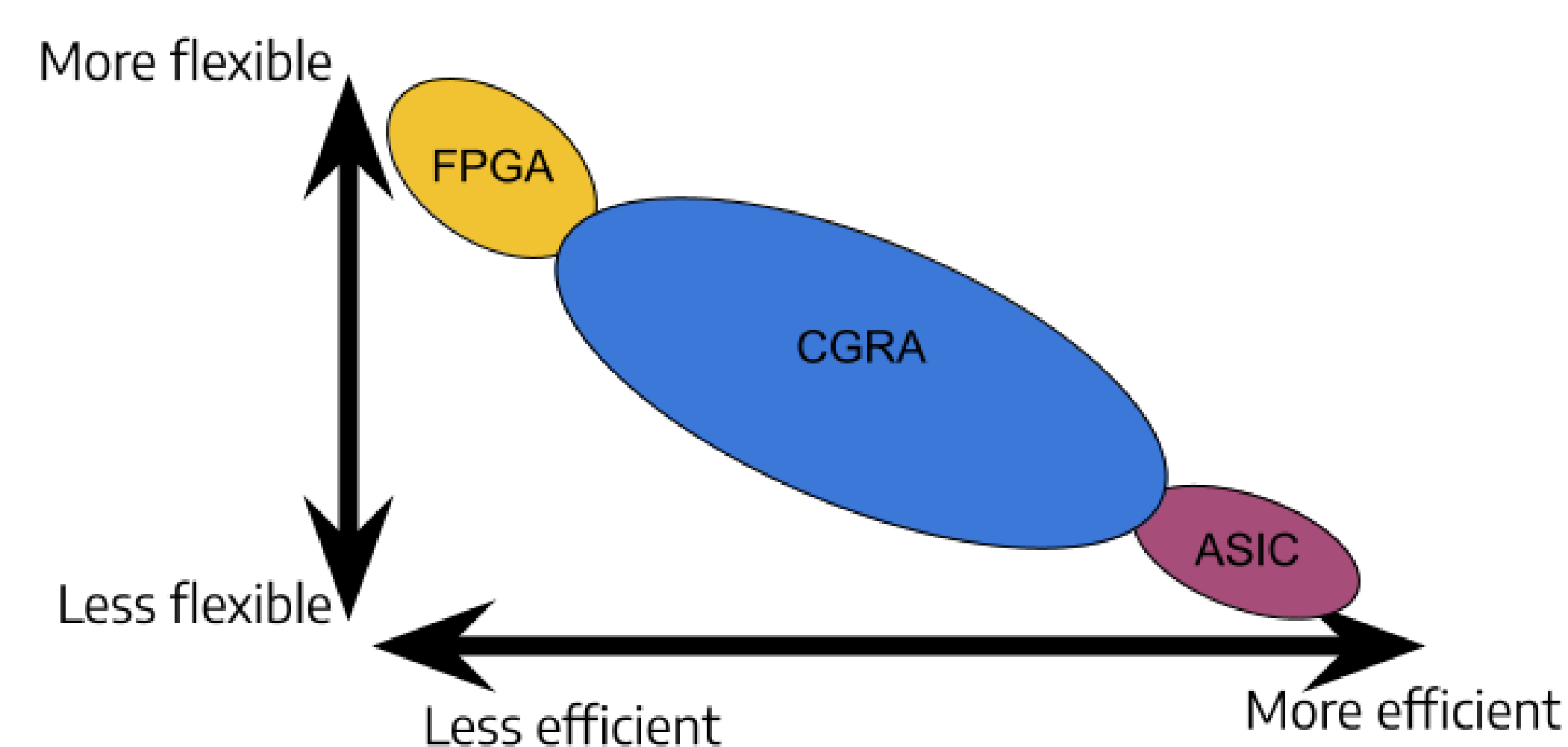
DORA: Open-Source Infrastructure for Prototyping Coarse-Grained Reconfigurable Fabrics

Shwet Chitnis, Jiayi Wang, Fergus Xu, Ayush Kulkarni, Rampranav Navendran, Juwon Jun, Jingqun Zhang, **Ang Li**

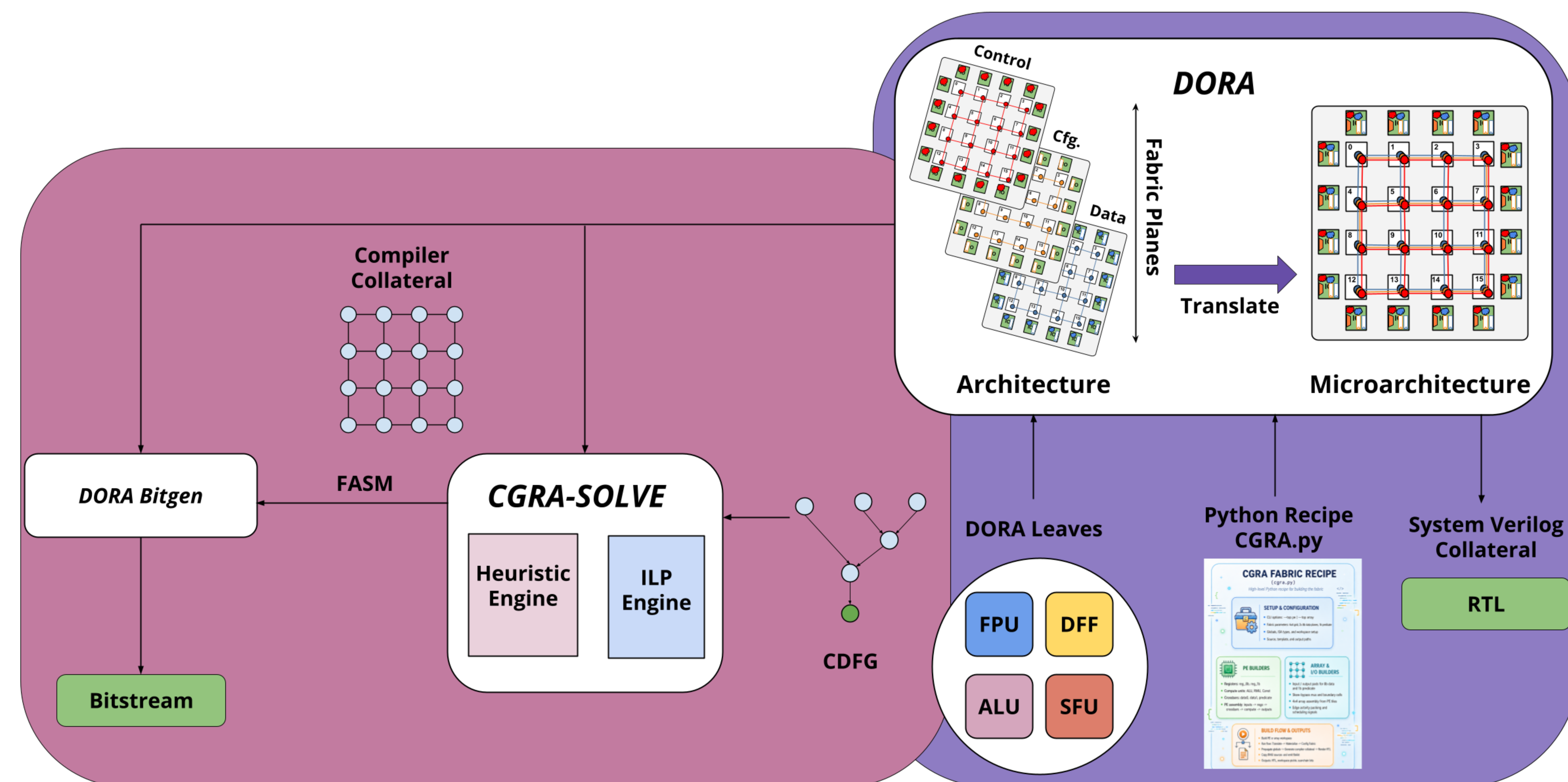
Abstract

- Open-source CGRA research needs infrastructure that can vary fabric architecture, RTL, compiler collateral, and configuration flow from one specification.
- We present Domain-Optimized Reconfigurable Architecture (DORA), a recipe-based Python framework for prototyping CGRA-style reconfigurable fabrics. A DORA recipe composes user-provided hardware leaves as a single source of truth for the compiler-visible architecture, generated RTL microarchitecture, and configuration feature space.

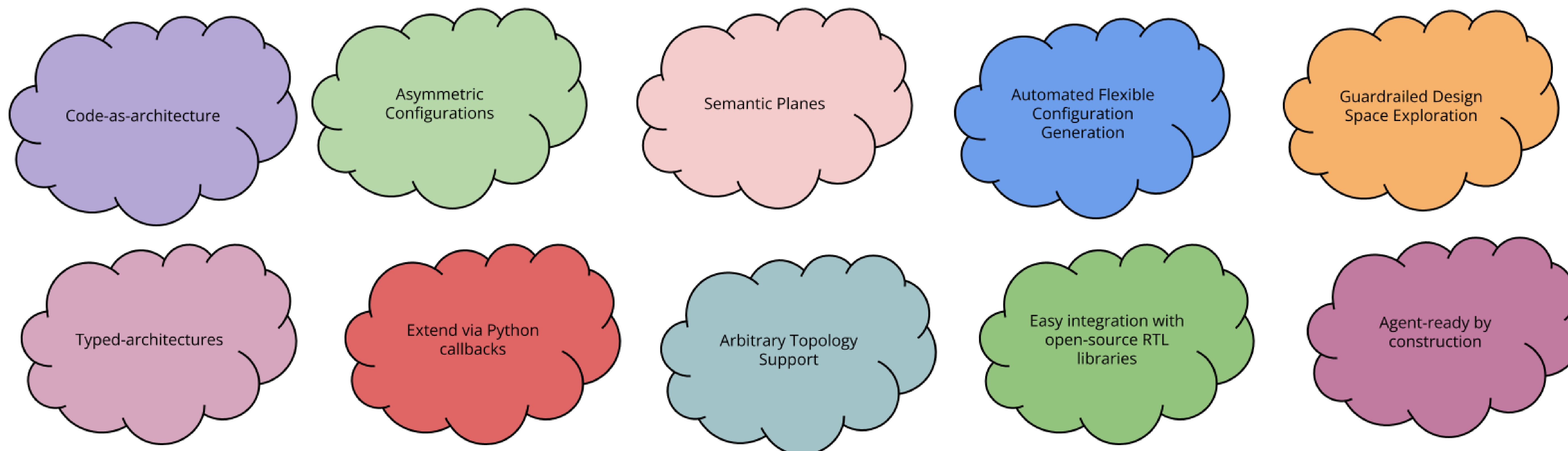
Reconfigurability Scale



Toolchain Overview

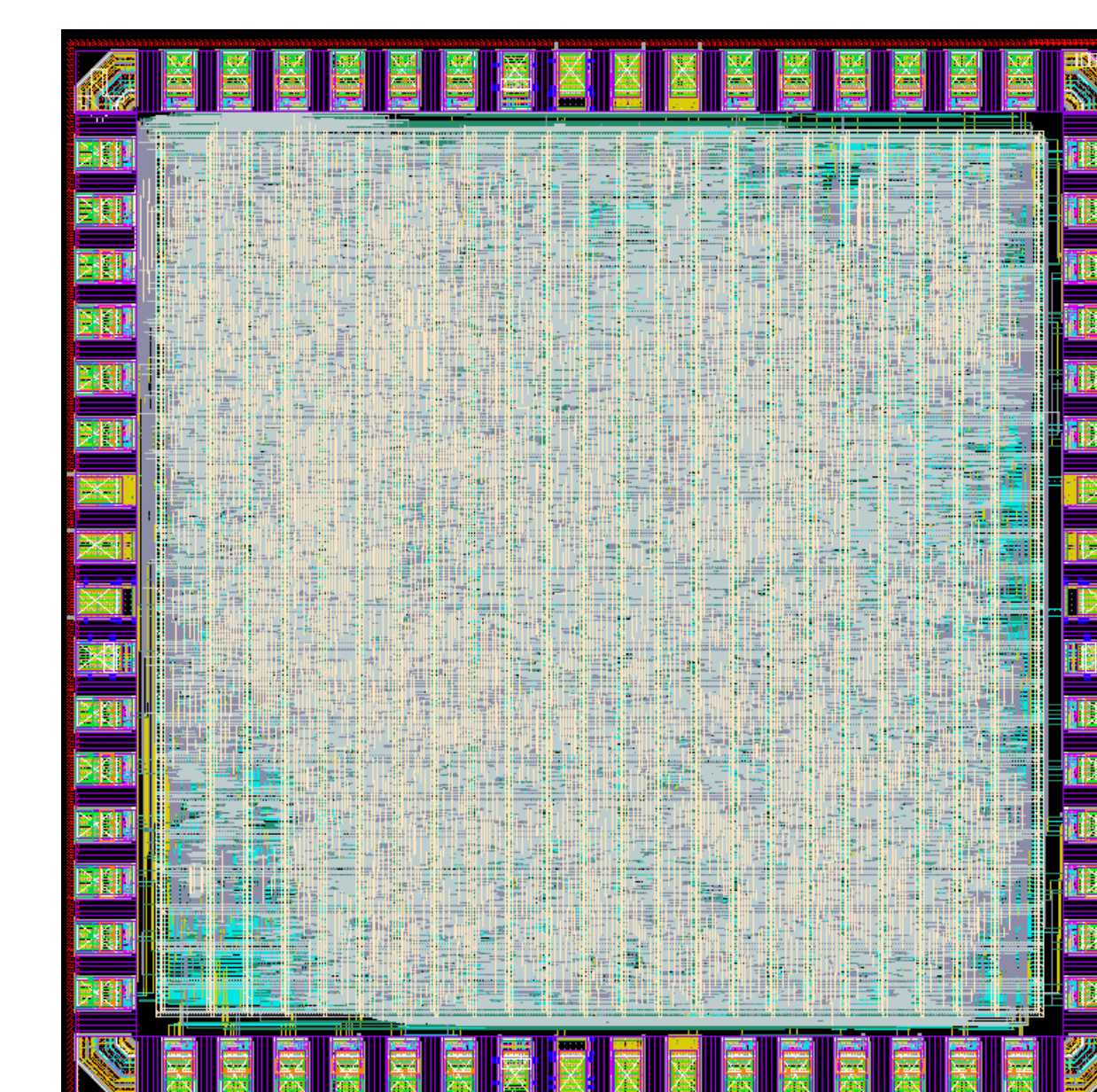


Features



TSMC 180nm Tape-outs

MiniDICE



RTA

