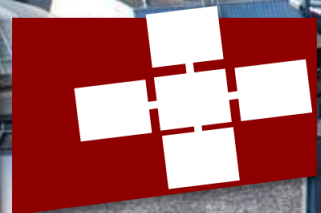


Alexandru Calotoiu

DaFIEx



C2DaCe challenges

- **Classes**
 - Inheritance
 - Contexts
- **Recursions**
 - Tail recursion
 - Indirect recursion
- **Pointers**
 - Unrestricted arithmetic
- **Stateful library calls**
 - Automatic assessment
- **Template programming**
- **Library nodes**
- **Encapsulation**

C2DaCe challenges

Engineering efforts

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Engineering efforts

Research efforts

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F2DaCe challenges

- **Generalized views**
- **Vector operations**
- **Labels & GoTo's**
- **Intrinsic function coverage**
- **Modern Fortran**

Engineering efforts

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DaCe challenges

- **Application-level ToGPU transform**
 - + Associated transforms

Engineering efforts

Research efforts

Lessons & conclusion from Tel Aviv



- F2Dace interesting to multiple groups
- MLIR is the future, but it's not quite production-level yet
- Performance modeling and hardware information will need to be integrated
- Tel Aviv and the conference there were great!