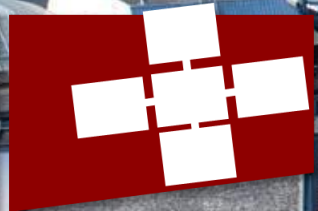
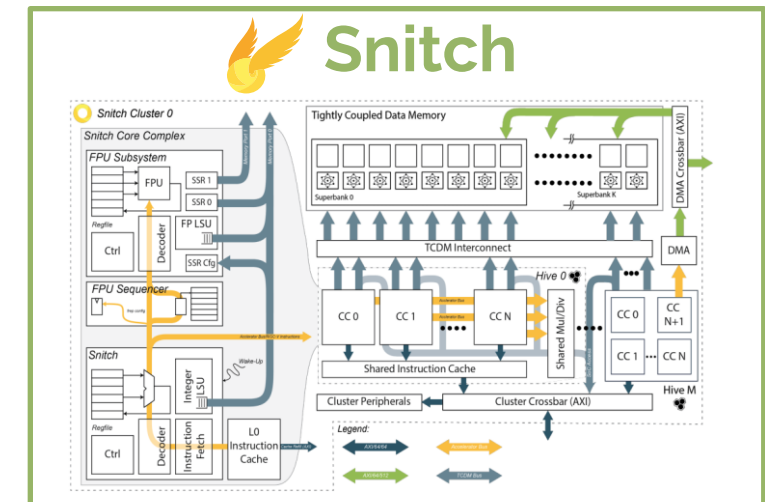
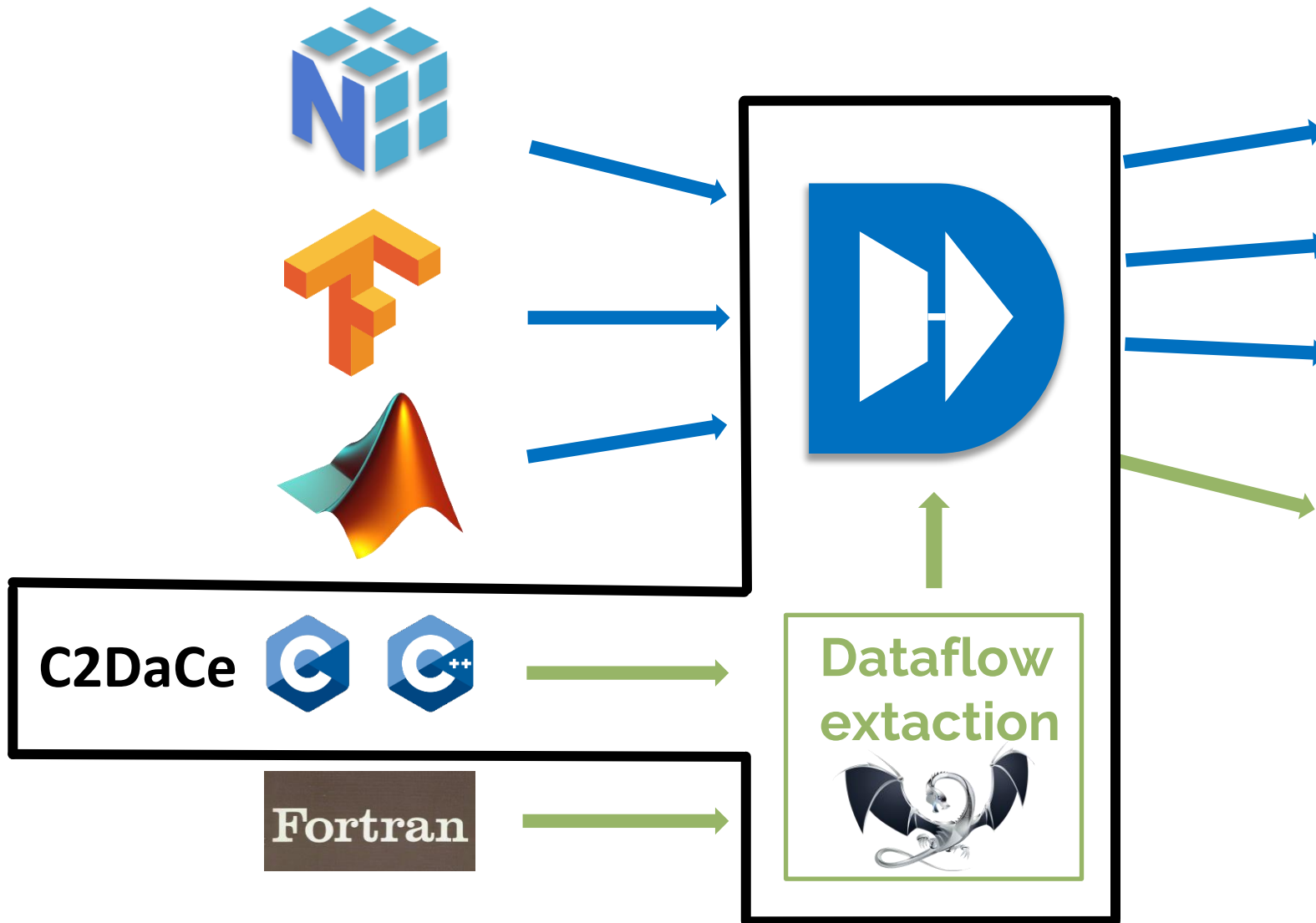


Alexandru Calotoiu

DaFIEx



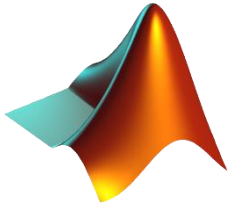
DaFlEx – goals



C2DaCe

- **Paper submitted**
- **Initial prototype ready**
- **Lots of opportunity for expansion**
- **Next steps:**
 - Upload to Arxiv
 - Making the code available on Github

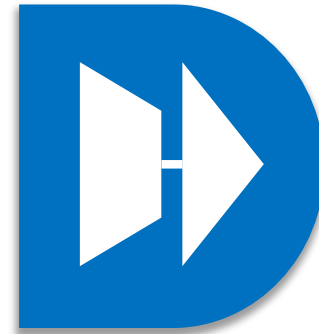
What's next?



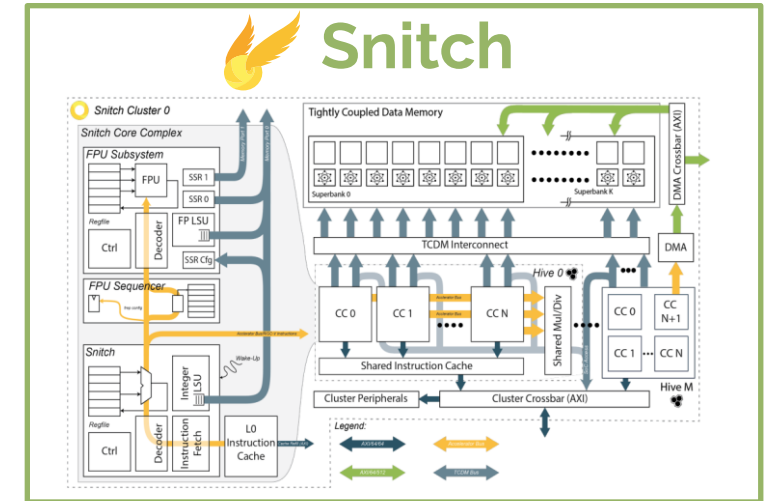
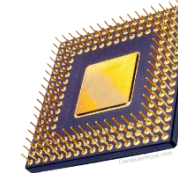
C2DaCe



Fortran



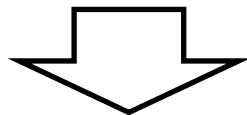
Dataflow
extaction



F2DaCe– interesting issues

- Array view change on function/subroutine call (and in general)

```
call sparse( a, colidx, rowstr, n, nz, nonzer, arow, acol, &
&          aelt, firstrow, lastrow, &
&          v, iv(1), iv(nz+1), rcond, shift )
```



```
subroutine sparse( a, colidx, rowstr, n, nz, nonzer, arow, acol, &
&          aelt, firstrow, lastrow, &
&          v, iv, nzloc, rcond, shift )
```

```
use tinfo
```

```
implicit      none
```

```
integer       colidx(*), iv(*)
```

```
integer       firstrow, lastrow
```

```
integer       n, nonzer, arow(*), acol(nonzer+1,*)
```

```
integer(kz)   nz, rowstr(*)
```

```
double precision a(*), aelt(nonzer+1,*), v(*), rcond, shift
```

F2DaCe – variable declaration

- Split (not deferred!) declaration

```
integer      na, nonzer, niter
double precision  shift, rcond
parameter(  na=1400, &
&          nonzer=7, &
&          niter=15, &
&          shift=10., &
&          rcond=1.0d-1 )
integer, parameter :: kz=4

-----
class specific parameters are defined in the npbparams
include file, which is written by the sys/setparams.c
-----

dimension parameters
integer(kz) nz, naz
parameter(  nz = int(na,kz)*(nonzer+1)*(nonzer+1) )
parameter(  naz = int(na,kz)*(nonzer+1) )
```