High level data parallelism

- At the highest level deal with a distributed array across a multi-node computer as an aggregate object
  - Periodic CSHIFT / Dirichlet EOSHIFT primitives
  - Conformable array operations on arrays of identically laid out data
    - c.f. F90 syntax array wildcarding/slicing
  - Predicated data parallel operation (where)

- High Performance Fortran was a failure due to MPI latency
  - Introduce additional, lower-level support for PDE stencil operations & halo exchange.

- Use C++ opaque containers for distributed arrays
  - Operator overloading leaves expressions “natural”
  - (compact C++11, 200 LoC) expression template engine keeps site local expressions optimized.

- Supports CPU w/ SIMD, CUDA, SyCL 2020, HIP compilation targets
  - Device data motion uses either software cache or unified virtual memory

```
A=B*C+Cshift(D,1,Xdir);

face = (mod(coor,Block[mu]) == 0) ;

projected= where(face==1,sp_proj,projected);
```