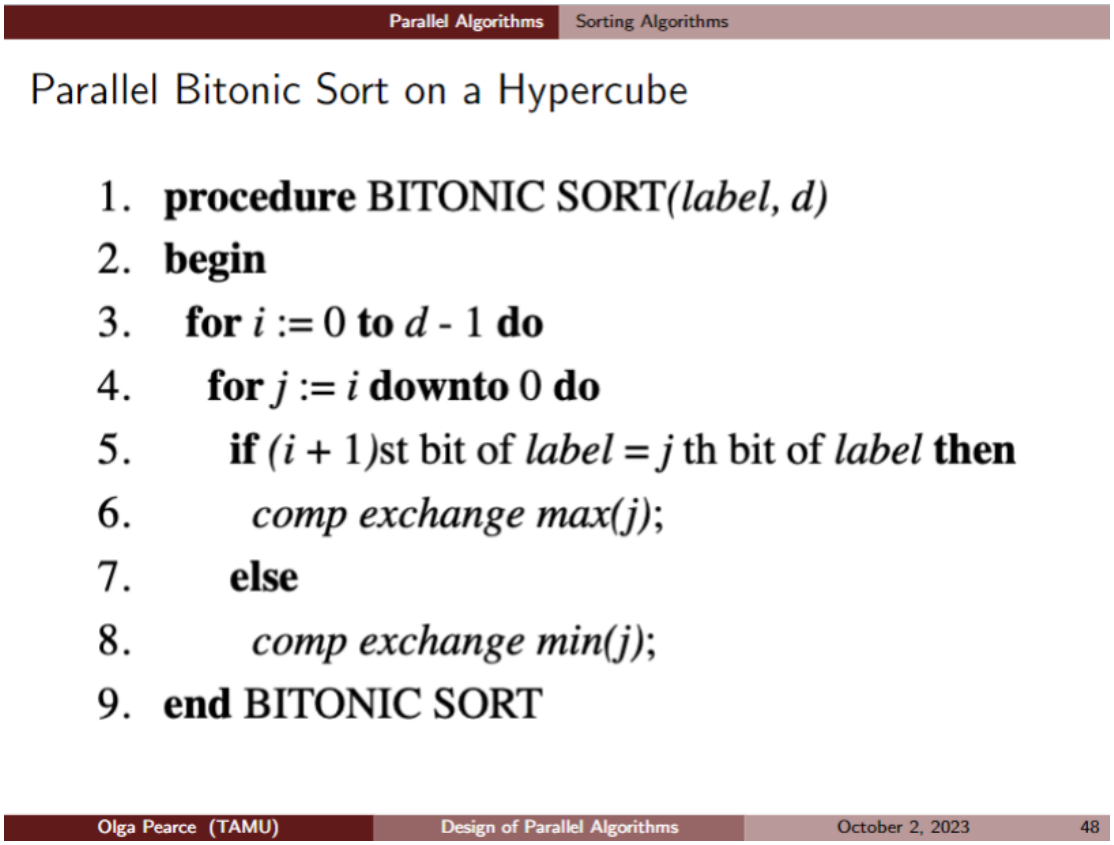
- How will your team communicate (slack, etc.)
- Algorithms you will implement, including pseudo-code
- What versions do you plan to compare

How we will communicate:

- We will use discord to communicate

The algorithms we will implement are:

- Parallel Bitonic Sort



- Parallel Odd-Even Transposition Sort

Parallel Odd-Even Transposition Sort

```
1.  procedure ODD-EVEN PAR(n)
2.  begin
3.      id := process's label
4.      for i := 1 to n do
5.      begin
6.          if i is odd then
7.              if id is odd then
8.                  compare-exchange min(id + 1);
9.              else
10.                 compare-exchange max(id - 1);
11.         if i is even then
12.             if id is even then
13.                 compare-exchange min(id + 1);
14.             else
15.                 compare-exchange max(id - 1);
16.     end for
17. end ODD-EVEN PAR
```

-Parralel Floyd-Warshall's Algorithm

Parallel Floyd's Algorithm

1. **procedure** FLOYD ALL PAIRS PARALLEL (A)
2. **begin**
3. $D^{(0)} = A$;
4. **for** $k := 1$ **to** n **do**
5. **forall** $P_{i,j}$, where $i, j \leq n$, **do in parallel**
6. $d^{(k)}_{i,j} := \min d^{(k-1)}_{i,j}, d^{(k-1)}_{i,k} + d^{(k-1)}_{k,j}$;
7. **end** FLOYD ALL PAIRS PARALLEL

We will be implementing the parallel versions of these algorithms and making comparisons using MPI and CUDA.