

HLR Blatt 04

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1 Datenaufteilung

1.1

Interlines $i \in \mathbb{N}_0$

Threads $t \in \mathbb{N}$

Berechenbare Reihen $r = 8i + 9$

$T \in t \rightarrow R_T \in r :$

$RR = \{R_1, R_2, R_3, \dots, R_T\}$

jeder Thread kriegt eine Menge an Reihen
(Ziffern in der Menge als Indizes der Reihen)

$$f(i, t) = \begin{cases} \text{für } (r - 2) \bmod t = 0 : A = (\overline{R_{T-1}} + \overline{R_{T-2}} + \dots); R_T = \{A + 1, A + 2, \dots, A + (int)\frac{r}{t}\} \\ \text{für } (r - 2) \bmod t \neq 0 : A = s.o.; \\ \left\{ \begin{array}{l} \text{für } T > ((r - 2) \bmod t) \text{ s. Fall 1} \\ \text{sonst } A = (\overline{R_{T-1}} + \overline{R_{T-2}} + \dots); R_T = \{A + 1, A + 2, \dots, A + (int)\frac{r}{t}, A + (int)\frac{r}{t} + 1\} \end{array} \right. \end{cases}$$

1.2

```
int i = getInterlines();
int r = i * 8 + 9 - 2;
int t = getThreads();
int rowsPerThread = (int) r / t;
int rPT_rest = r % t;
int currentRow = 1;
for (int i = 0; i < t; i++)
{
    threads[i].assignStart(currentRow);
    if (rPT_rest > 0)
    {
        threads[i].assignEnd(rowsPerThread + 1);
        rPT_rest--;
        currentRow = rowsPerThread + 1;
    }
}
```

```
        else
        {
            threads[i].assignEnd(currentRow);
            currentRow = rowsPerThread;
        }
    }
```

1.3

