Aufgabe 2

Brute-Force   Boyer-Moore   Rabin-Karp

|Basis| = 2 |P| = 9 |Basis| = 8 |P| = 3 |Basis| = 23 |P| = 2

average runtime in ms
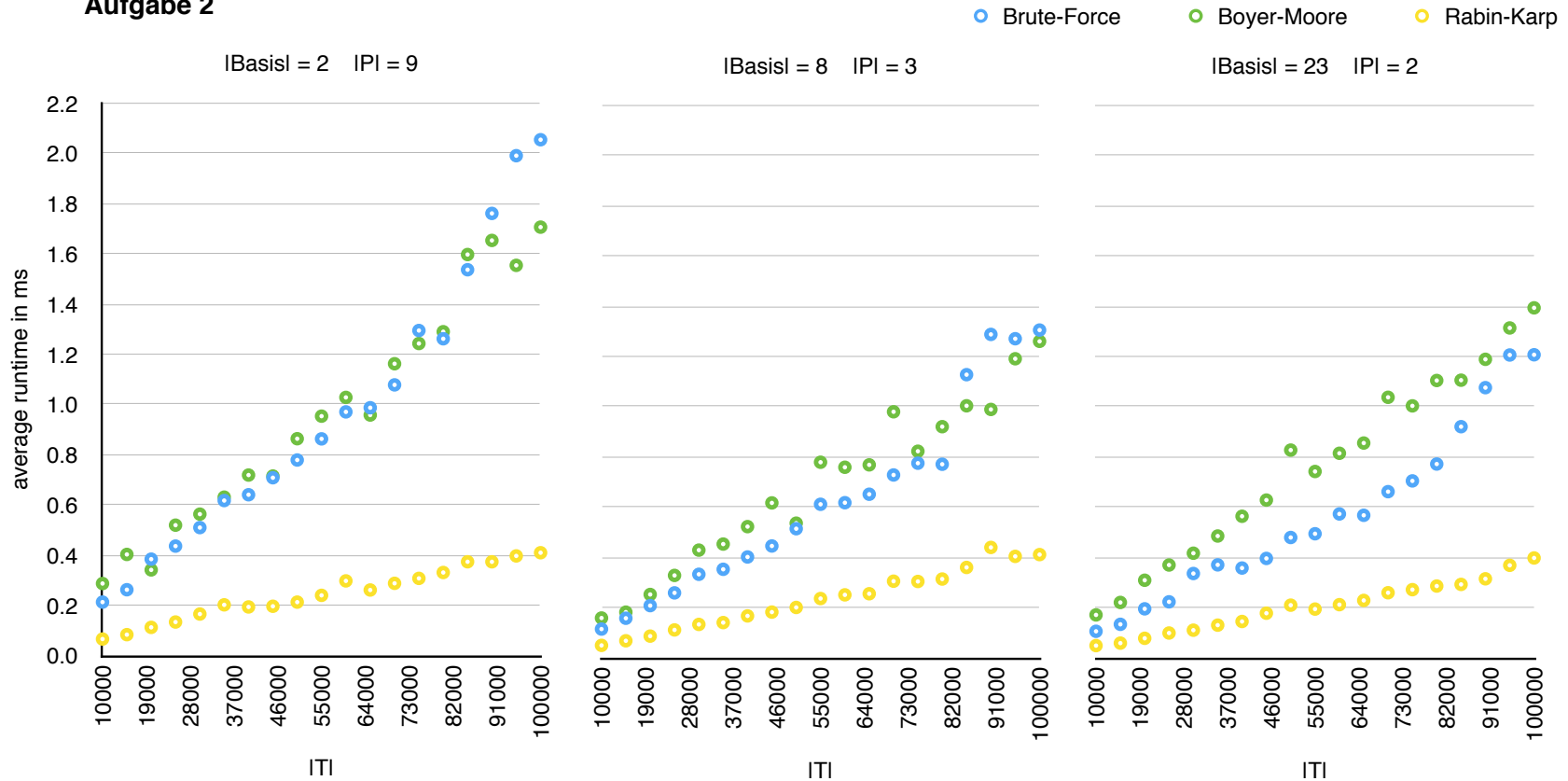
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0

|T|

|T|

|T|

Read 1215796 characters from Moby Dick.

iterations = 10

Brute-Force-Match:
Found 131 Matches for 'captain' in 36.79 milli seconds
Found 83 Matches for 'Moby' in 29.10 milli seconds

Boyer-Moore-Match:
Found 131 Matches for 'captain' in 11.73 milli seconds
Found 83 Matches for 'Moby' in 10.25 milli seconds

Rabin-Karp-Match:
Found 131 Matches for 'captain' in 10.21 milli seconds
Found 83 Matches for 'Moby' in 8.95 milli seconds

Aufgabe 1

```
teilfolge(T, P) -> boolean:
    j = 0
    for i in |T|:
        if T[i] == P[j] && j < |P|:
            j++
    return j == |P|
```

Wir laufen alle Buchstaben in T ab und testen jeden Buchstaben gegen
einen Buchstaben aus P. Damit is die Komplexität O(|T|).