Master-Thesis

Methodical Approach for Analyzing Process Parameters and Optimizing Boundary Conditions in Multi-Axis Robot Programs

Status Update: Week 12

18.12.2023 – 24.12.2023 

Jan Nalivaika

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Progress

Exposé Done == DONE ☺

All Comments implemented == DONE ☺

Abbreviations == DONE ☺

Rundung in „Direction Changes“ analysieren == DONE ☺

G - Commands

G60 = the points are reached exactly, but the feedrate is reducing to 0 at every waypoint

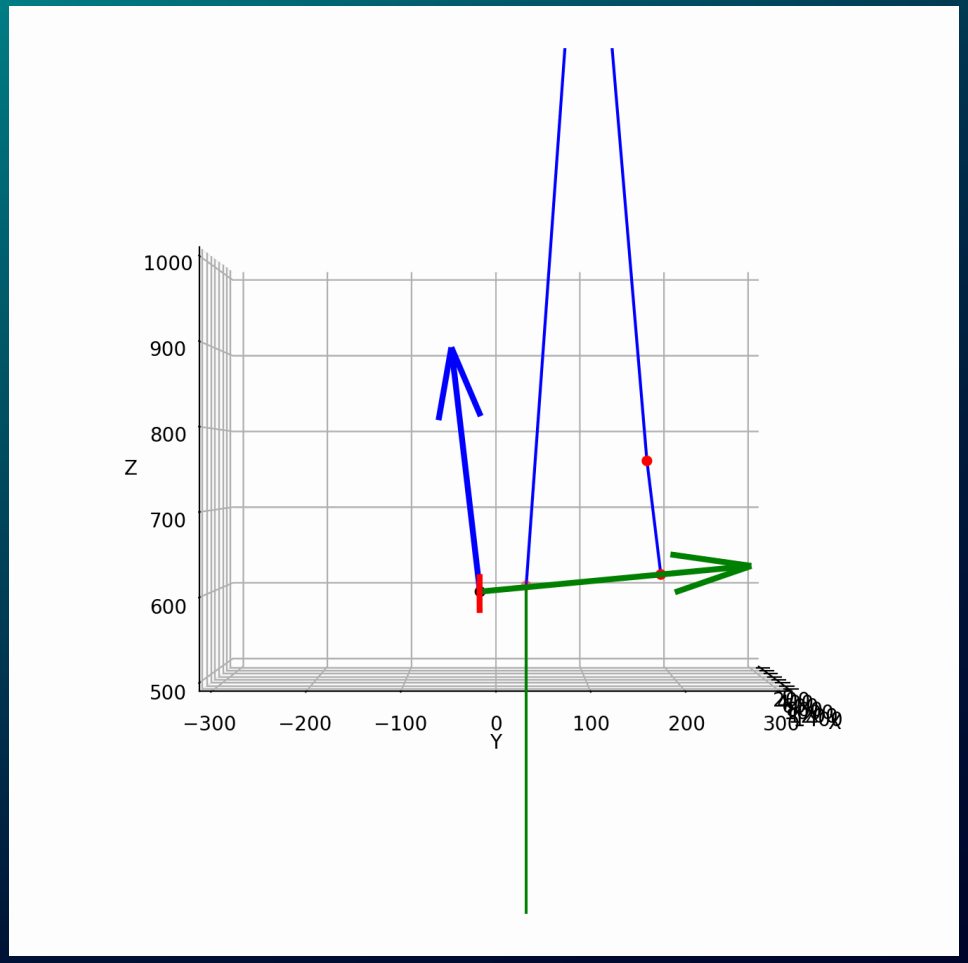
G641 = Bahnsteuerbetrieb mit Überschleifen nach Wegkriterium (ADIS=0.5)

GLOBALE BEFEHLE:
G601:
Befehl zum Aktivieren von Genauhalt-Kriterium "Genauhalt fein"

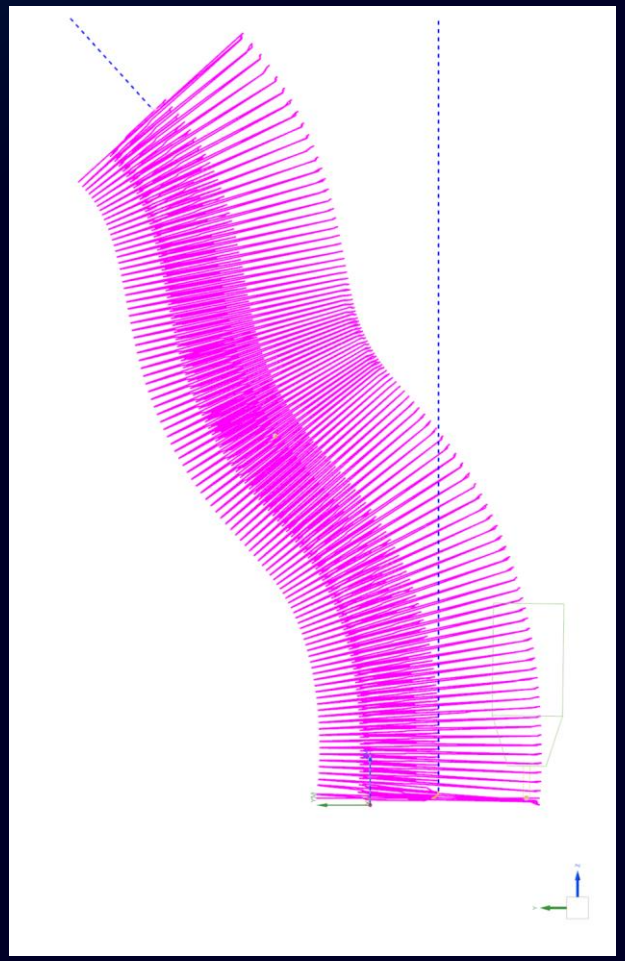
G602:
Befehl zum Aktivieren von Genauhalt-Kriterium "Genauhalt grob"

Real Gcode

Show GIF of robot with moving base



Show STL in viewer



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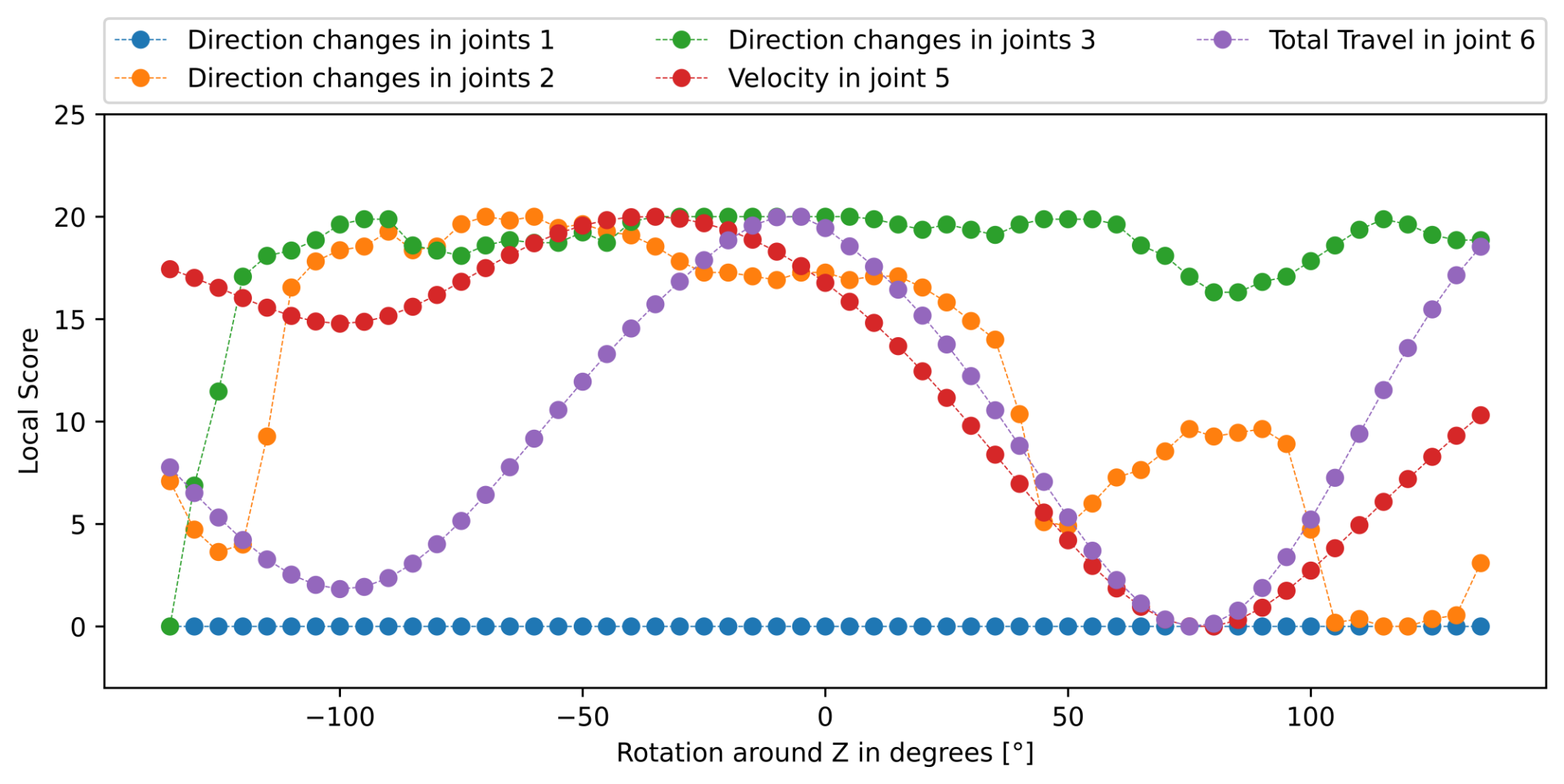
Result



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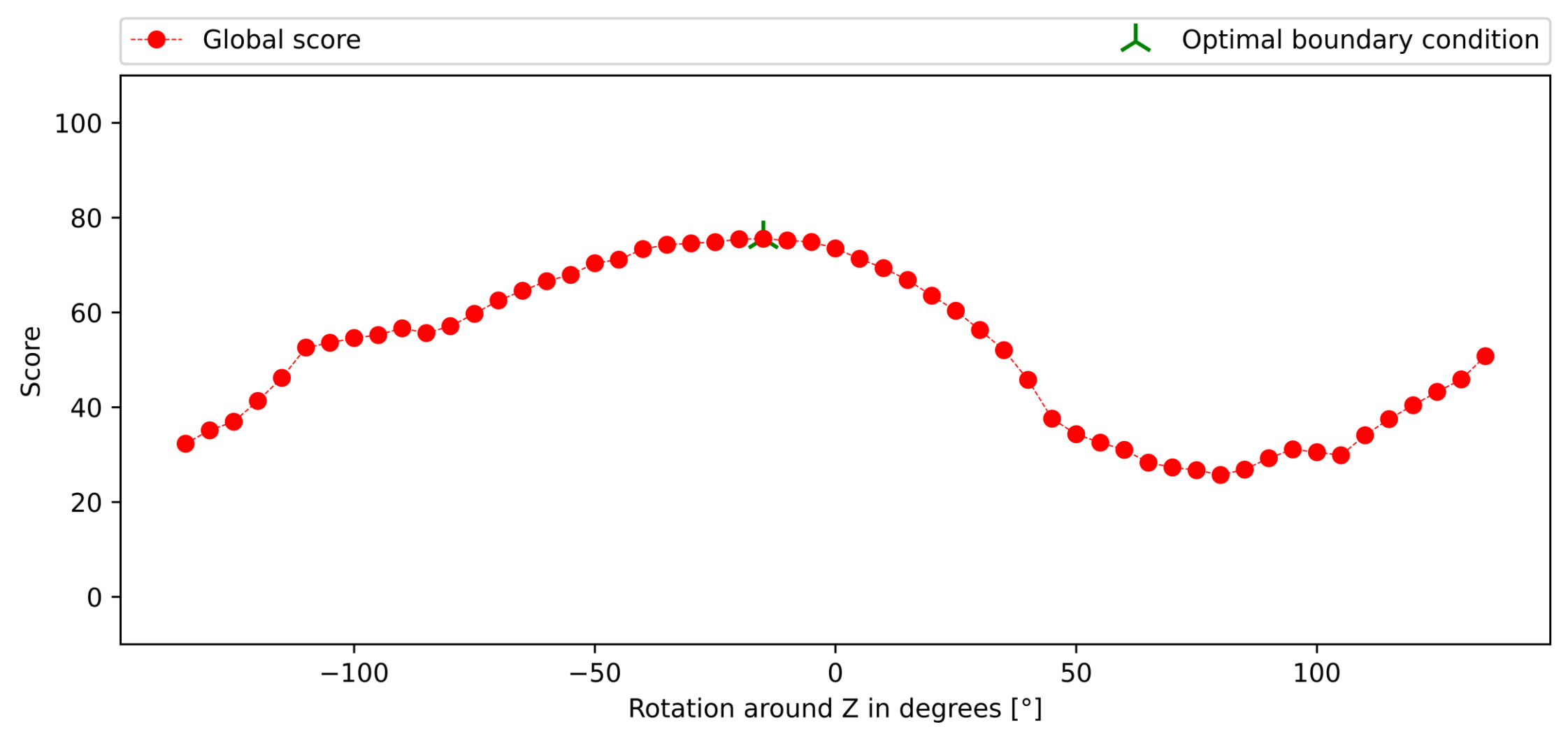
Global Score



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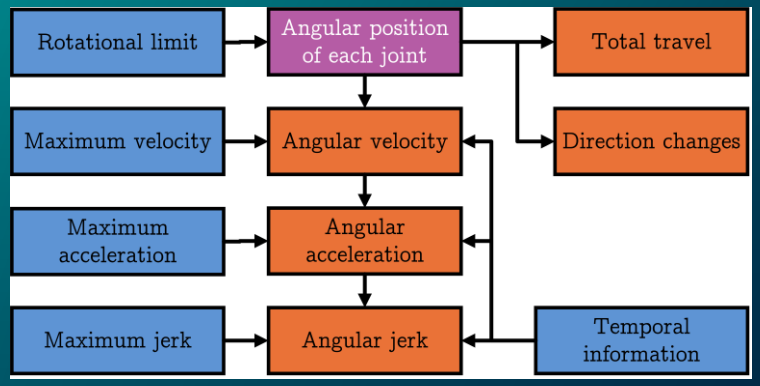
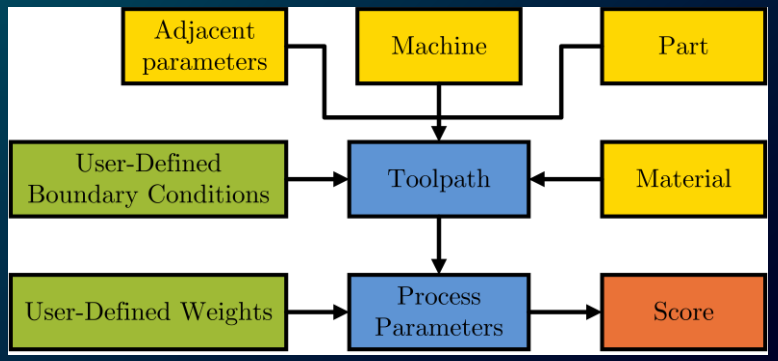
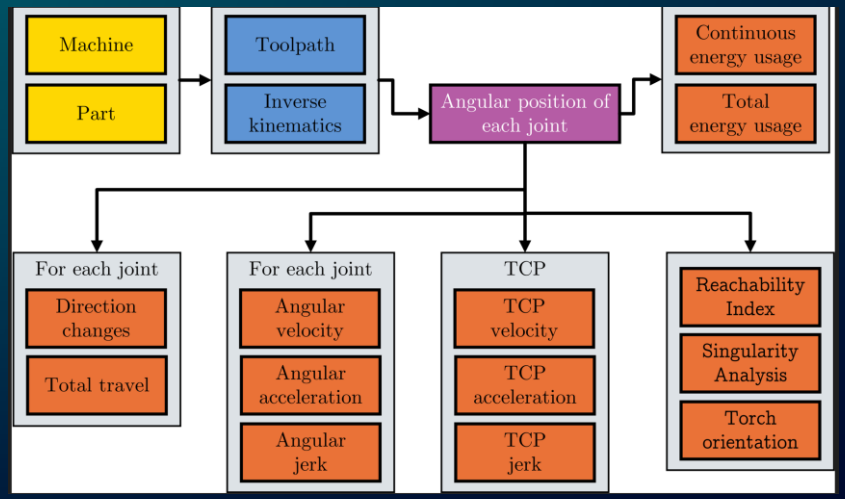
Images







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2 Weeks to Finish

Current Status: 1+2+3 = Done

Finalize Chapter 4
Real Gcode – Write Validation
Summery – Write

Finalize Chapter 5
Conclusion – Write
Outlook – Write

Abstract – Write

Formatting

Colors in text (images)

What could be done:

Real DH Parameters
TCP Transformation
Rotary-Tilt table Adaption
Add 3rd DOF (Rotation)
Bigger Gcodes

Quellen ()

Contact

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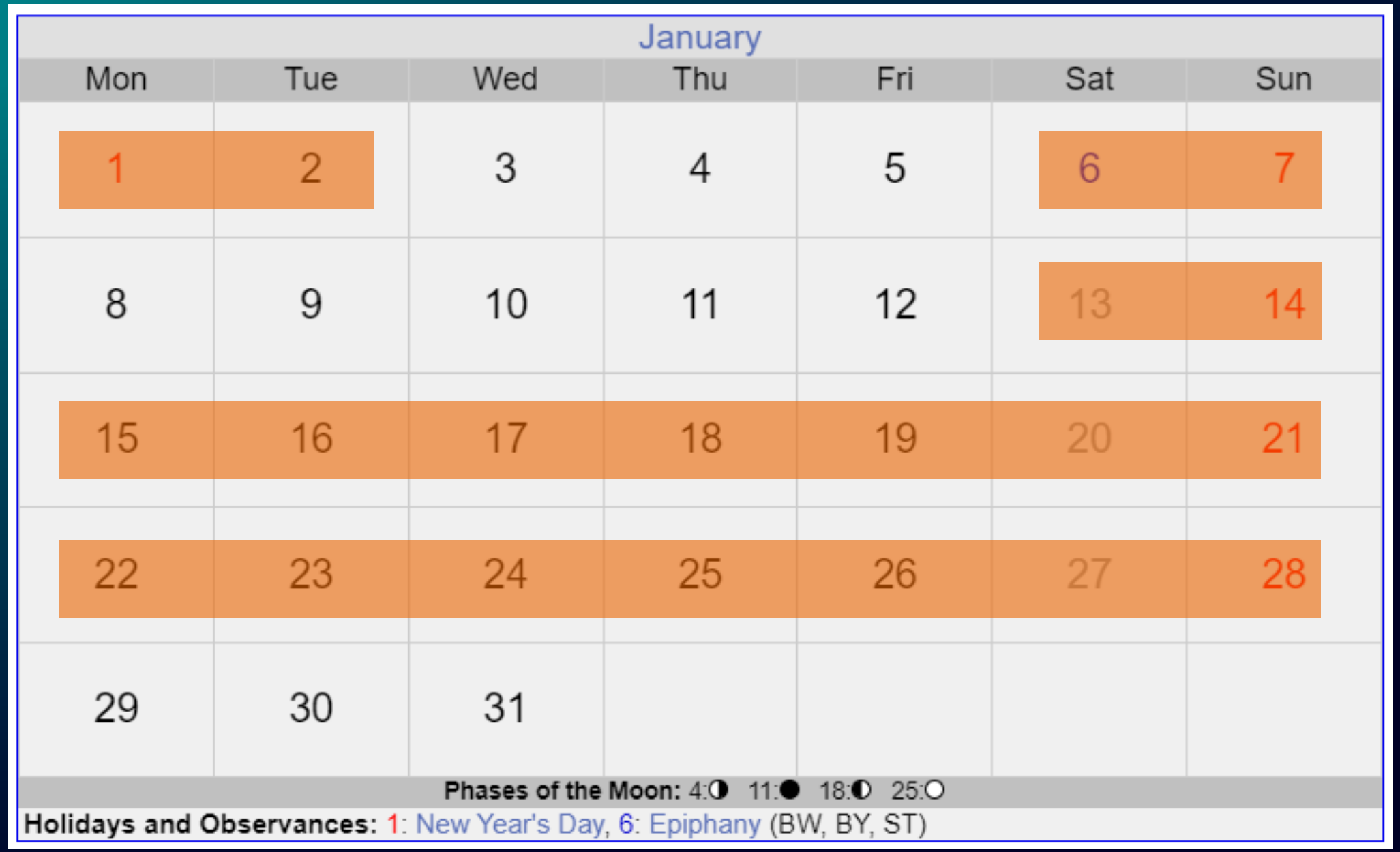
Christmas planning

DATE:	Ludwig	Marius	Jan
29.12	X		X
05.01			☺ (PDF update)
12.01			☺
19.01			X
26.01			X
02.02			☺
09.02			☺
16.02			☺
23.02			☺
01.03			☺
08.03	**Last possible Changes in PDF**		
15.03	**Defense**		
22.03			
29.03			



11 Tage
Januar

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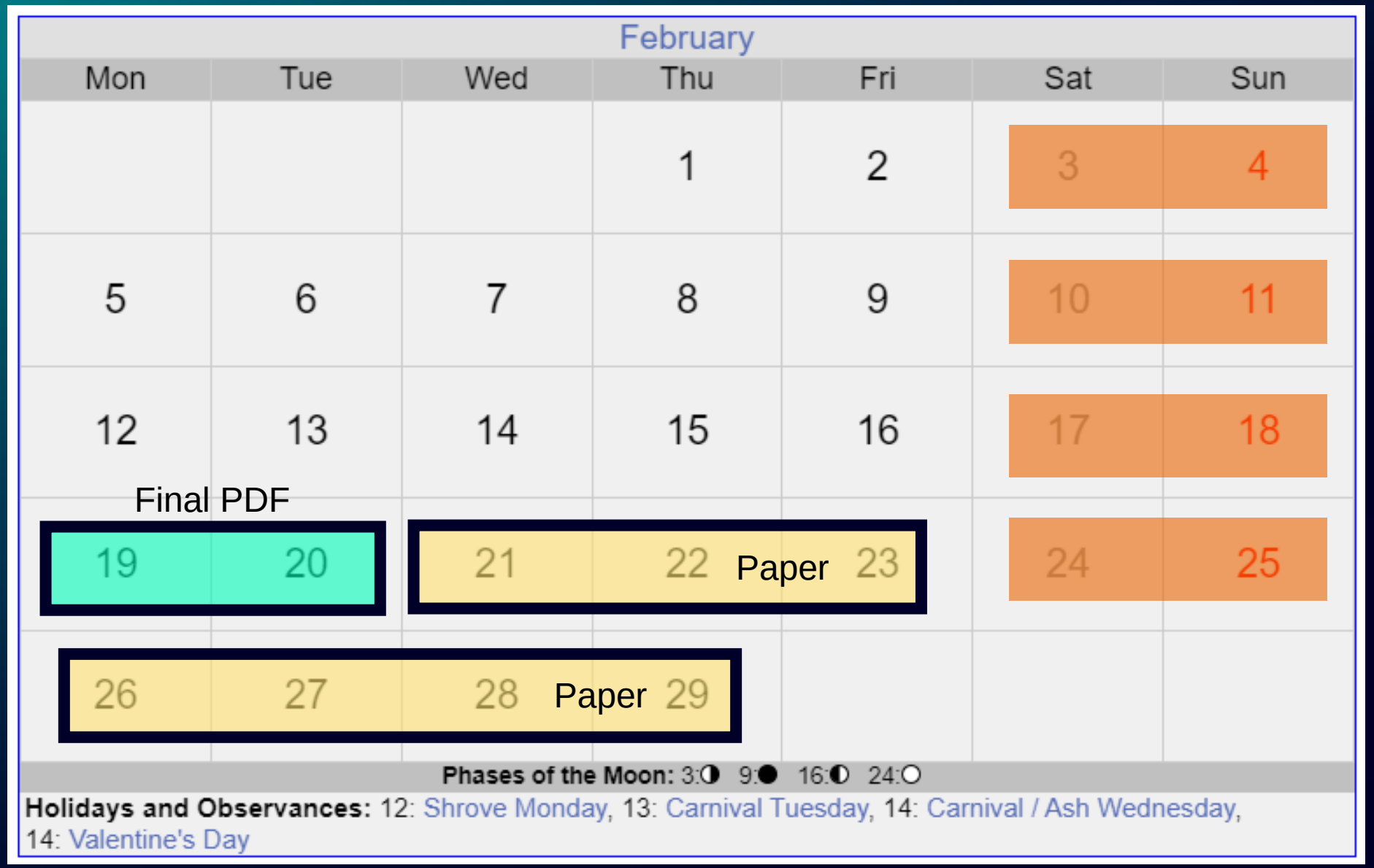

12 Tage
Januar

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March
Mon
Tue
Wed
Thu
Fri
Sat
Sun
Paper
1
2
3
4
5
6
Paper
7
8
9
10
Verteidigung
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PowerPoint für Verteidigung
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31
Phases of the Moon: 3:◑ 10:● 17:◐ 25:○
Holidays and Observances: 8: International Women's Day (Most regions), 24: Palm Sunday,
28: Maundy Thursday (All), 29: Good Friday, 30: Holy Saturday (Many regions),
31: Easter Sunday (Brandenburg)

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