

Egypt series under the supervision of
Dr. Mahmoud Nassar

Benha University

Workflow

Refresh Load *.mat data

Plan

bixel width in [mm] 5

Gantry Angle in ° 0

Couch Angle in ° 0

Radiation Mode photons

Machine Generic

IsoCenter in [mm] 295.8 296.7 311.1

Fractions 30

Type of optimization none

Objectives & constraints

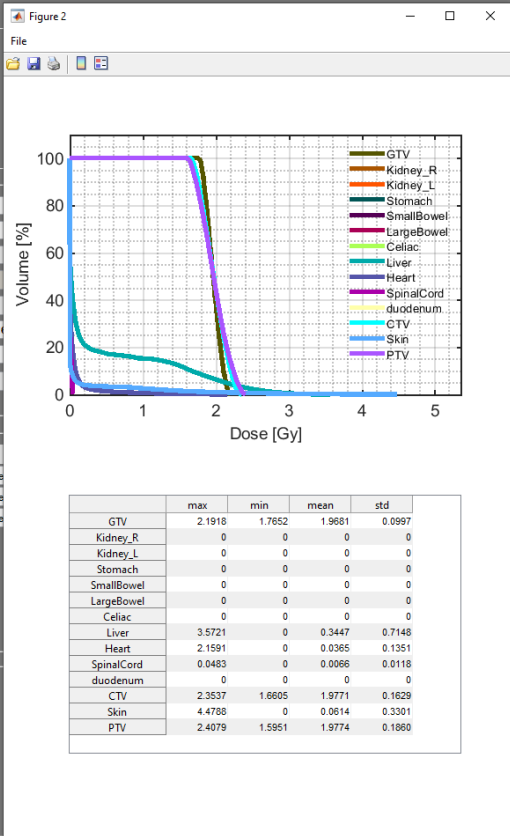
+/	VOI name	VOI type	OP
-	Heart	OAR	2 Square
-	Skin	OAR	3 Square
-	PTV	TARGET	1 Square
*	GTV		

Visualization

Slice Selection [x] [y]

Beam Selection [x] [y]

Offset [x] [y]



matRad dkfz. GERMAN CANCER RESEARCH CENTER IN THE HELMHOLTZ ASSOCIATION

min value: 0
max value: 4.4788

axial plane z = 317.5 [mm]

Viewer Options

Result (i.e. dose)

Window Preset Custom

Window Center: 2.24

Window Width: 4.48

Range: 0 4.479

jet

Lock Settings

Dose opacity: 1

Structure Visibility

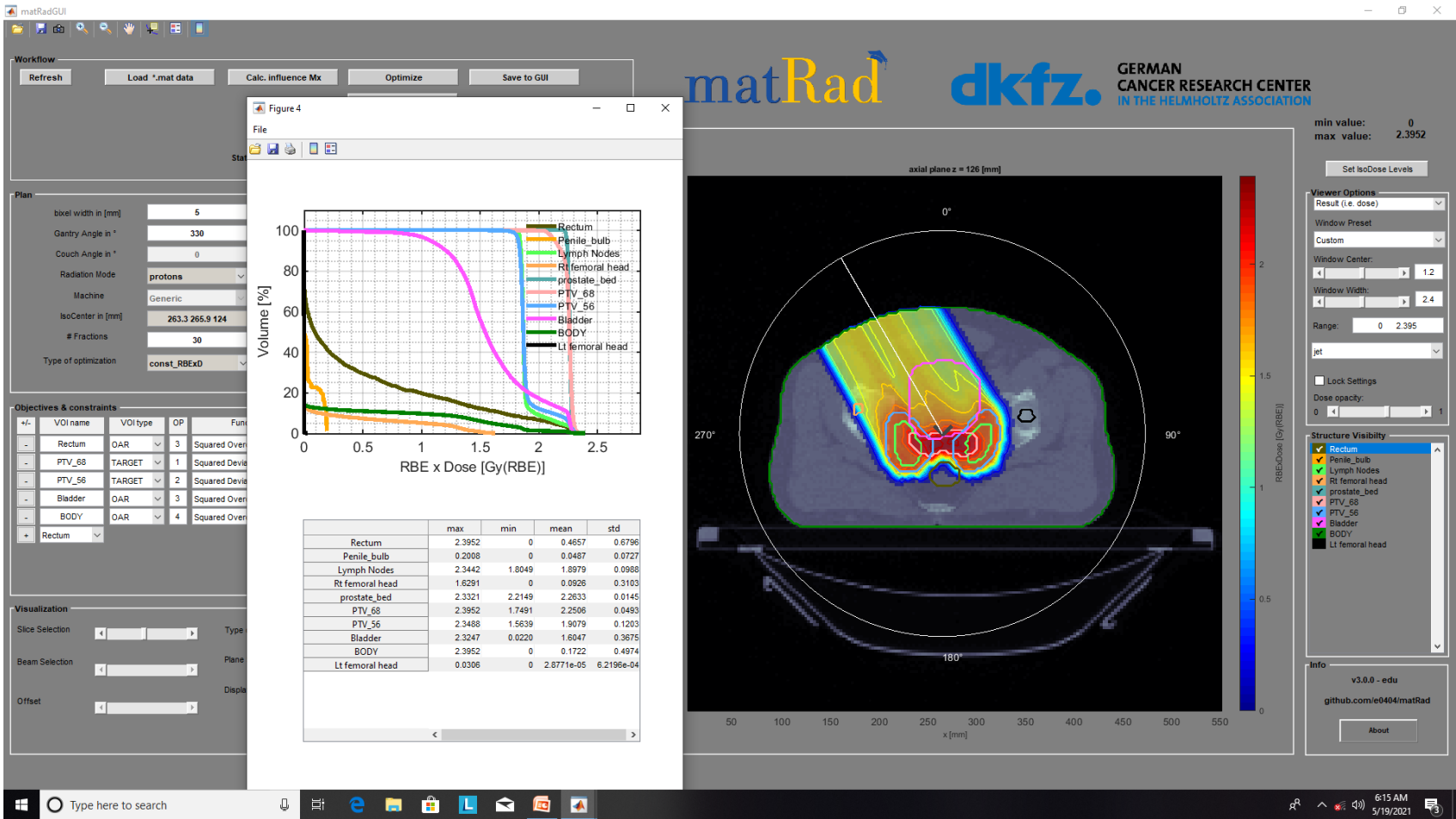
- GTV
- Kidney_R
- Kidney_L
- Stomach
- SmallBowel
- LargeBowel
- Celiac
- Stomach_SkinV
- Liver
- Heart
- SpinalCord
- DoseFallOff
- duodenum
- CTV
- Skin
- PTV
- cord+5mm
- clip2
- clip1
- min3

Info

v3.0.0 - edu

github.com/e0404/matRad

About



matRadGUI

Workflow: Refresh Load *.mat data Calc. influence Mx Optimize Save to GUI

Plan:

- bixel width in [mm]: 5
- Gantry Angle in °: 0
- Couch Angle in °: 0
- Radiation Mode: protons
- Machine: Generic
- IsoCenter in [mm]: 263.3 265.9 124
- # Fractions: 30
- Type of optimization: const_RBxD

Objectives & constraints:

#.	VOI name	VOI type	OP	Func
-	Rectum	OAR	3	Squared Over
-	PTV_68	TARGET	1	Squared Devia
-	PTV_56	TARGET	2	Squared Devia
-	Bladder	OAR	3	Squared Over
-	BODY	OAR	4	Squared Over
+	Rectum			

Visualization:

- Slice Selection: [] Type: []
- Beam Selection: [] Plane: []
- Offset: [] Display: []

Figure 6

	max	min	mean	std
Rectum	2.3732	0	0.4253	0.6826
Penile_bulb	0.2043	0	0.0378	0.0655
Lymph_Nodes	2.3495	1.7989	1.8976	0.0982
Rt femoral head	0.0781	0	6.5219e-05	0.0017
prostate_bed	2.3470	2.0734	2.2628	0.0153
PTV_68	2.3955	1.6894	2.2497	0.0503
PTV_56	2.3495	1.4003	1.9076	0.1198
Bladder	2.3108	0	1.3359	0.7160
BODY	2.3955	0	0.1593	0.4856
Lt femoral head	0.0325	0	3.7799e-05	7.9847e-04

axial plane z = 126 [mm]

0°

270°

90°

180°

50 100 150 200 250 300 350 400 450 500 550

x [mm]

min value: 0
max value: 2.3955

Set IsoDose Levels

Viewer Options:

- Result (i.e. dose): Custom
- Window Preset: Custom
- Window Center: []
- Window Width: []
- Range: 0 2.395
- jet
- Lock Settings:
- Dose opacity: 0 [] 1

Structure Visibility:

- Rectum
- Penile_bulb
- Lymph_Nodes
- Rt femoral head
- prostate_bed
- PTV_68
- PTV_56
- Bladder
- BODY
- Lt femoral head

Info:

- v3.0.0 - edu
- github.com/e0404/matRad
- About

Type here to search

6:22 AM 5/19/2021



Workflow

Refresh Load *.mat data

Plan

bixel width in [mm] 5

Gantry Angle in ° 0

Couch Angle in ° 0

Radiation Mode protons

Machine Generic

IsoCenter in [mm] 263.3 265.9 124

Fractions 30

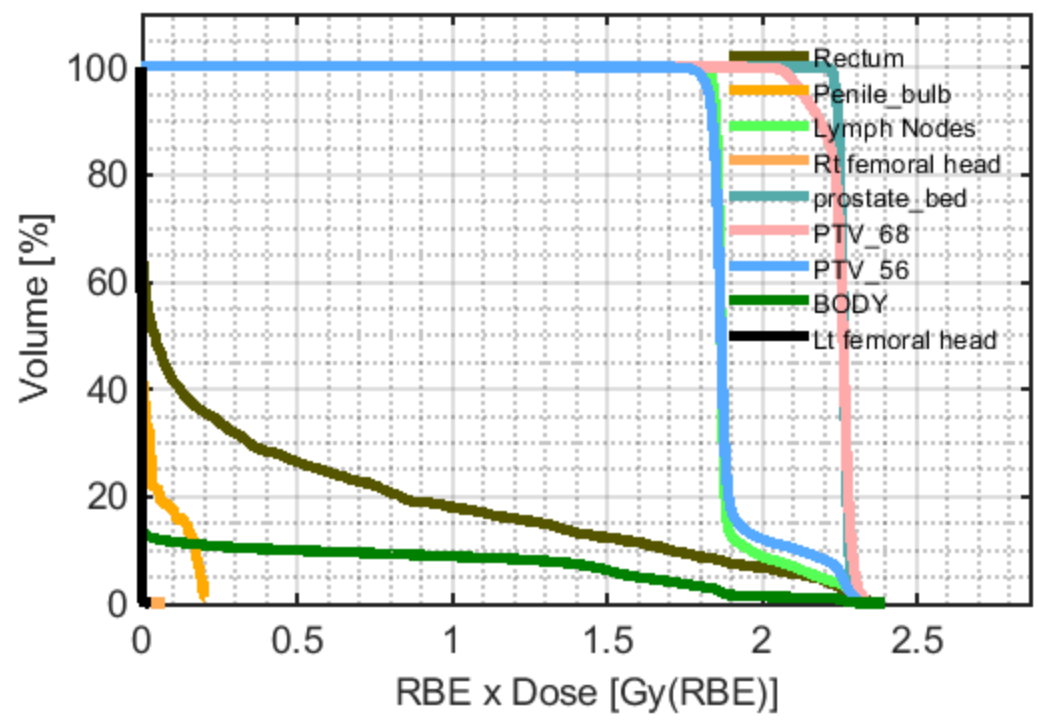
Type of optimization const_RBExD

Objectives & constraints

+/-	VOI name	VOI type	OP	Function
-	Rectum	OAR	3	Squared Overdo
-	PTV_68	TARGET	1	Squared Deviatk
-	PTV_56	TARGET	2	Squared Deviatk
-	Bladder	OAR	3	Squared Overdo
-	BODY	OAR	4	Squared Overdo
+	Rectum			

Figure 3

File



	max	min	mean	std
Rectum	2.3732	0	0.4253	0.6826
Penile_bulb	0.2043	0	0.0378	0.0655
Lymph Nodes	2.3495	1.7989	1.8976	0.0982
Rt femoral head	0.0781	0	6.5219e-05	0.0017



Workflow
 Refresh Load *.mat data Calc.

Status:

Plan

bixel width in [mm]

Gantry Angle in °

Couch Angle in °

Radiation Mode

Machine

IsoCenter in [mm]

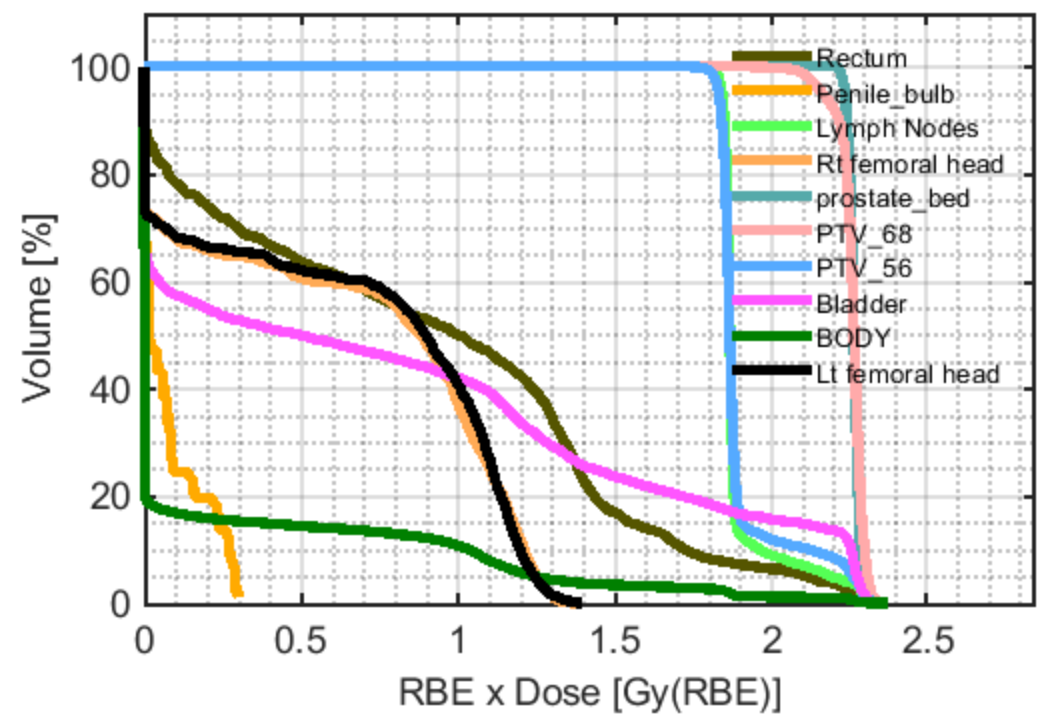
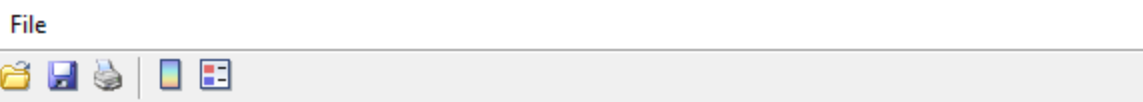
Fractions

Type of optimization

Objectives & constraints

+/-	VOI name	VOI type	OP	Function
-	Rectum	OAR	3	Squared Overdosin
-	PTV_68	TARGET	1	Squared Deviation
-	PTV_56	TARGET	2	Squared Deviation
-	Bladder	OAR	3	Squared Overdosin
-	BODY	OAR	4	Squared Overdosin
+	Rectum			

Figure 5



	max	min	mean	std
Rectum	2.3403	0	0.8951	0.6799
Penile_bulb	0.3036	0	0.0790	0.1027
Lymph Nodes	2.3350	1.7871	1.8983	0.1003
Rt femoral head	1.3860	0	0.6572	0.5018