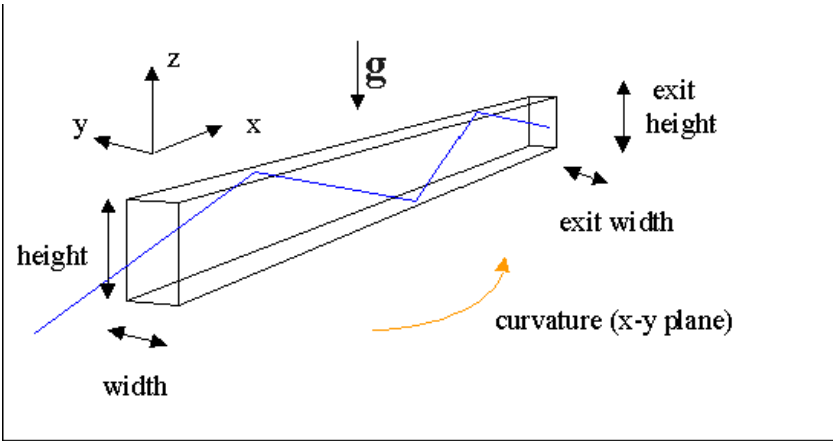


Ex. 2 VITNESS components: guides and choppers

**Joint VITNESS/McStas workshop
18.-20.09.2013**

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- choose shape: constant, curved, linear, parabolic, elliptic, from file
- entrance / exit width / height
- piece length
- reflectivity:
predefined in FILES/reflectivity_files
create with Tools/Generate Mirror Files

Shape and size of guide

horizontal shape vertical shape

guide shape

entrance width [cm] entrance height [cm]

exit width [cm] exit height [cm]

Guide characteristics

piece length [cm] number of pieces

total scattering [1/cm] absorption [1/cm]

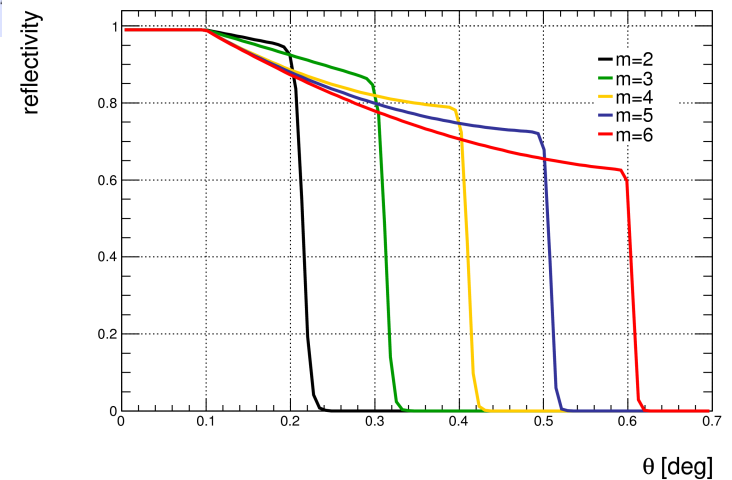
Reflectivity files

left plane

right plane

top plane

bottom plane



further parameters:

Bender option

number of channels

blade thickness [cm]

curvature (radius) [m]

Special options

hor. focus dist. of ellipse [cm]

vert. focus dist. of ellipse [cm]

add to color

add. plane angle [deg]

abutment loss

waviness distr.

abutment loss area [cm]

surface waviness [deg]

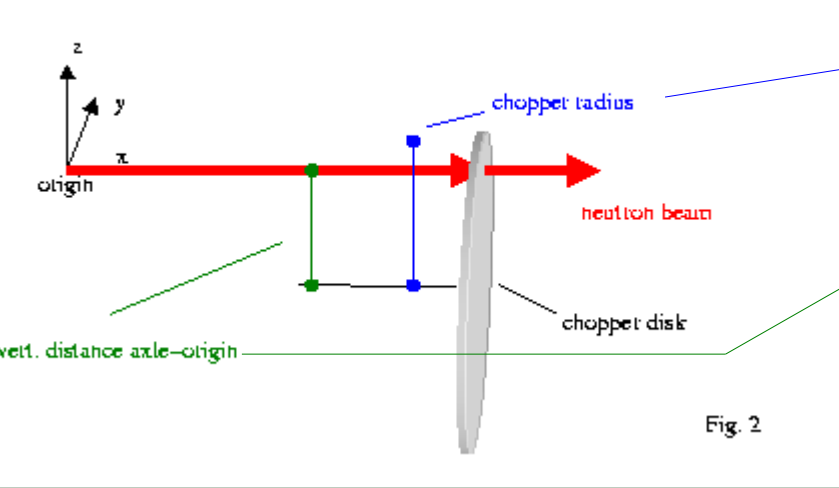
for curved guide

for elliptic guide

count number of reflections

alternative (new): `guide_ideal`
see also guide exercise 3(b) for details

Disc choppers



Edit chop_1.dat

number of windows	<input type="text" value="1"/>	radius [cm]	<input type="text" value="35"/>
vert. position of axle [cm]	<input type="text" value="-28"/>	horiz. position of axle [cm]	<input type="text" value="0"/>

first window

window position [deg]	<input type="text" value="-102"/>	window height [cm]	<input type="text" value="13"/>	window width [deg]	<input type="text" value="2.5"/>
left side deviation [deg]	<input type="text" value="0"/>	right side deviation [deg]	<input type="text" value="0"/>		

2nd window (if at least 2 windows)

window position [deg]	<input type="text"/>	window height [cm]	<input type="text"/>	window width [deg]	<input type="text"/>
left side deviation [deg]	<input type="text"/>	right side deviation [deg]	<input type="text"/>		

3rd window (only if 3 windows)

window position [deg]	<input type="text"/>	window height [cm]	<input type="text"/>	window width [deg]	<input type="text"/>
left side deviation [deg]	<input type="text"/>	right side deviation [deg]	<input type="text"/>		

4th window (only if 4 windows)

window position [deg]	<input type="text"/>	window height [cm]	<input type="text"/>	window width [deg]	<input type="text"/>
left side deviation [deg]	<input type="text"/>	right side deviation [deg]	<input type="text"/>		

Module 4 chopper_disc

chopper file

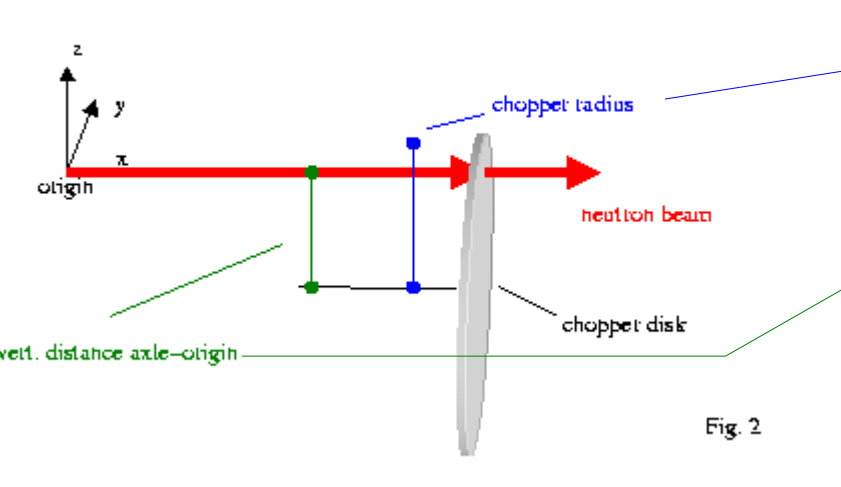
rounds / min. Offset [deg] distance to prev. module [cm]

No of equ. windows

absorption set zero time treat neutrons passing by

set colour

Disc choppers



Module 4 chopper_disc

chopper file

rounds / min. Offset [deg] distance to prev. module [cm]

No of equ. windows

absorption set zero time treat neutrons passing by

set colour

Edit chop_1.dat

number of windows radius [cm]

vert. position of axle [cm] horiz. position of axle [cm]

first window

window position [deg] window height [cm] window width [deg]

left side deviation [deg] right side deviation [deg]

2nd window (if at least 2 windows)

window position [deg] window height [cm] window width [deg]

left side deviation [deg] right side deviation [deg]

3rd window (only if 3 windows)

window position [deg] window height [cm] window width [deg]

left side deviation [deg] right side deviation [deg]

Fig. 3