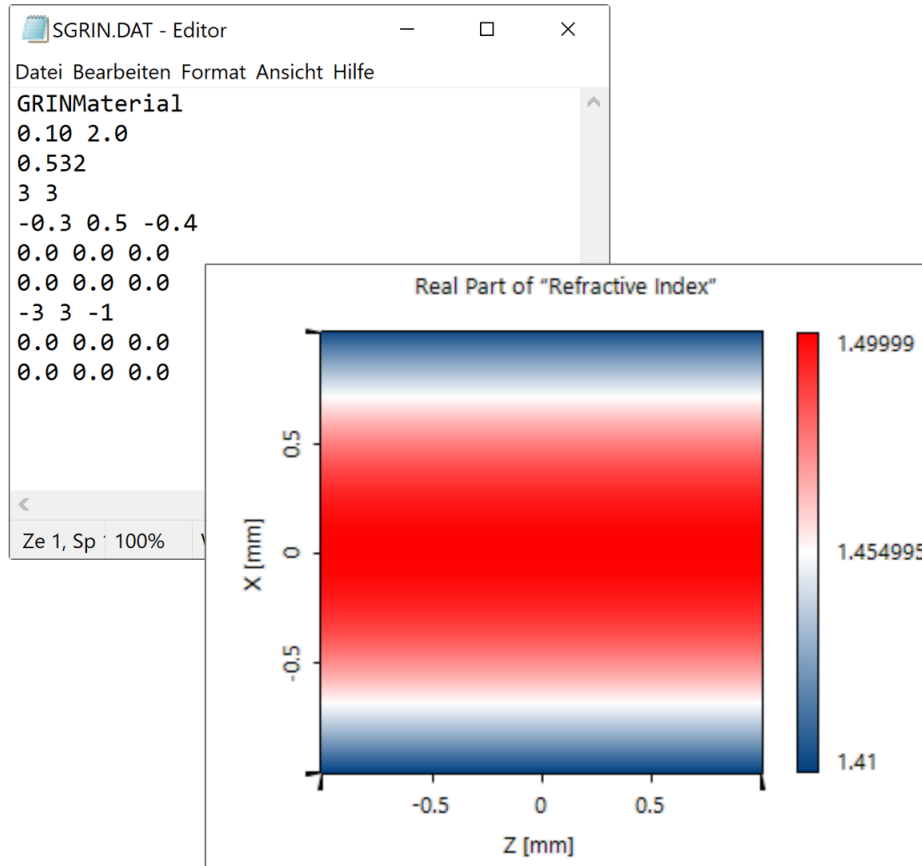


# Import of GRIN Medium from Zemax OpticStudio®

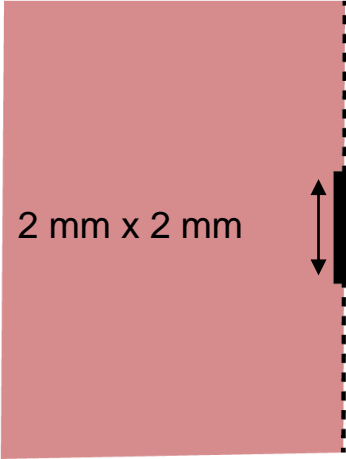
# Abstract



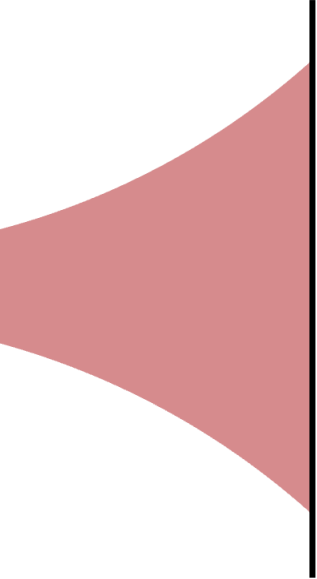
In many physical applications Graded-Index-Media (GRIN) are used because of its characteristics to reduce modal dispersion in multi-mode fibers. In this demonstration we show how to import a GRIN-Media defined in particular by a “Gradient 5” from Zemax OpticStudio® into VirtualLab Fusion.

# Task Description

plane wave  
- 532 nm wavelength



GRIN fiber  
- parameters according import file



# Data Import

Lens Data

Update: Editors Only

Surface 1 Properties Configuration 1/1

Surface	Type	n0	Nz2	Nz4	Nz1	Nz2	Nz3	Nz4	X Tangent	Y Tangent
0	OBJECT Standard									
1	STOP (aper) Gradient 5	1,500	-0,100	1,000E-02	0,000	0,000	0,000	0,000	0,000	0,000
2	(aper) Standard									
3	IMAGE (aper) Standard									

SGRIN.DAT - Editor

Datei Bearbeiten Format Ansicht Hilfe

```
GRINMaterial
0.10 2.0
0.532
3 3
-0.3 0.5 -0.4
0.0 0.0 0.0
0.0 0.0 0.0
-3 3 -1
0.0 0.0 0.0
0.0 0.0 0.0
```

Ze 1, Sp 100% Windows (CRLF) UTF-8

Edit Programmable Medium (x-y-z-Modulated)

Basic Parameters Scaling Periodization

Base Material  
Name Vacuum

Catalog Material

State of Matter Gas or Vacuum

Index Modulation  
Snippet defines  Index Modulation  Index Distribution

Definition  
Edit

Validity: ✓

Parameters

nz2

nz3

nz4

ScalingLength

Reference/Wavelength

KArray

LArray

Edit General Parameter: Double Array 2D

Number of Entries 3 x 1

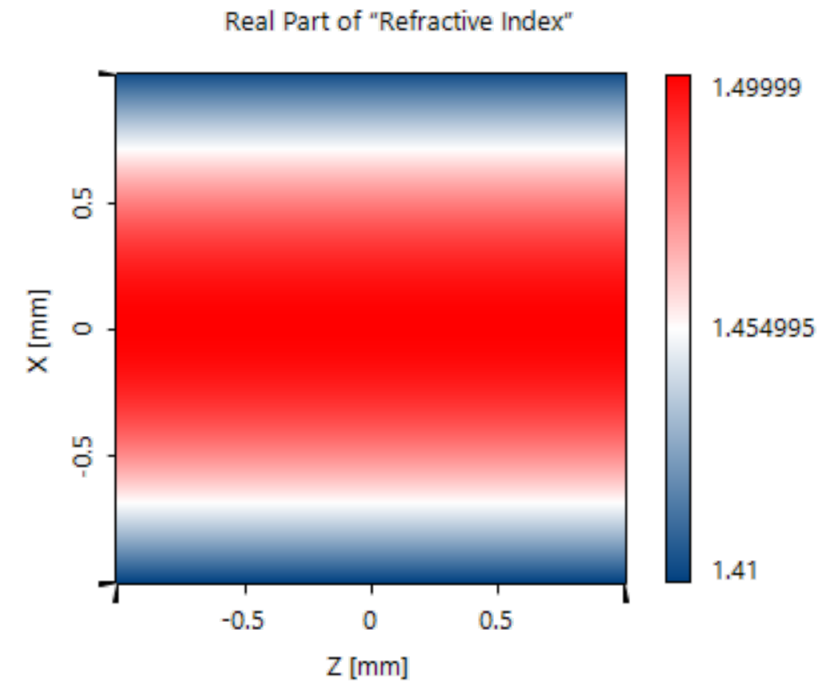
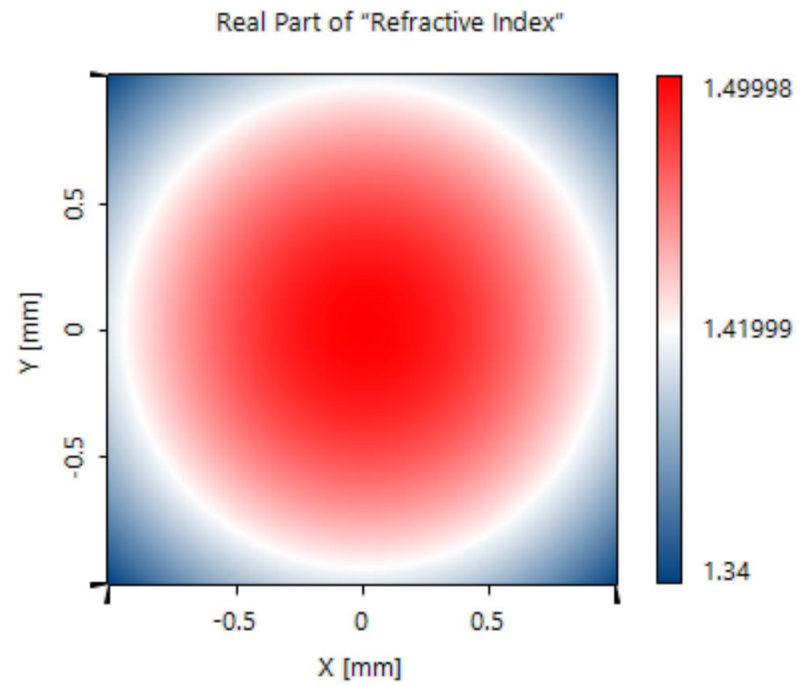
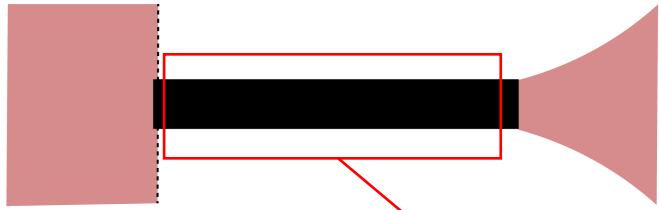
Parameter Extraction  
 Make Entries Available for Parameter Extraction

Array Index #0 ->

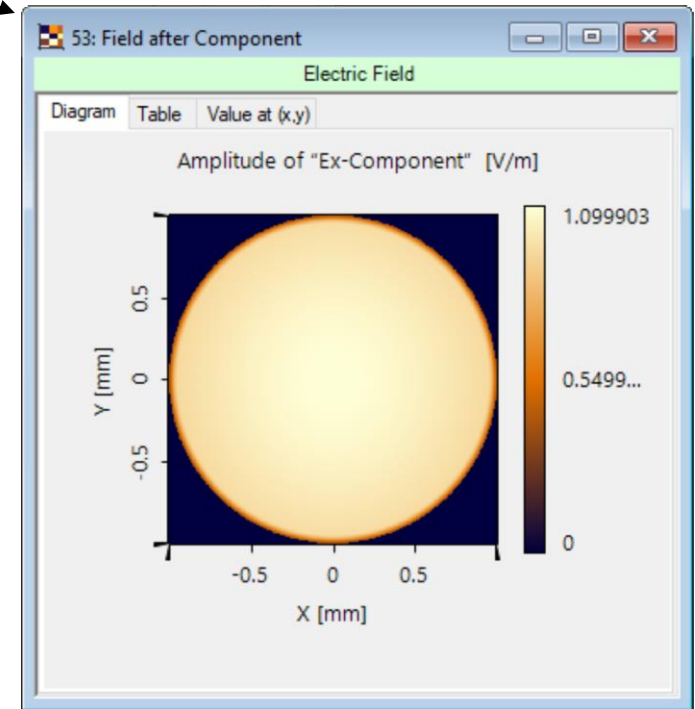
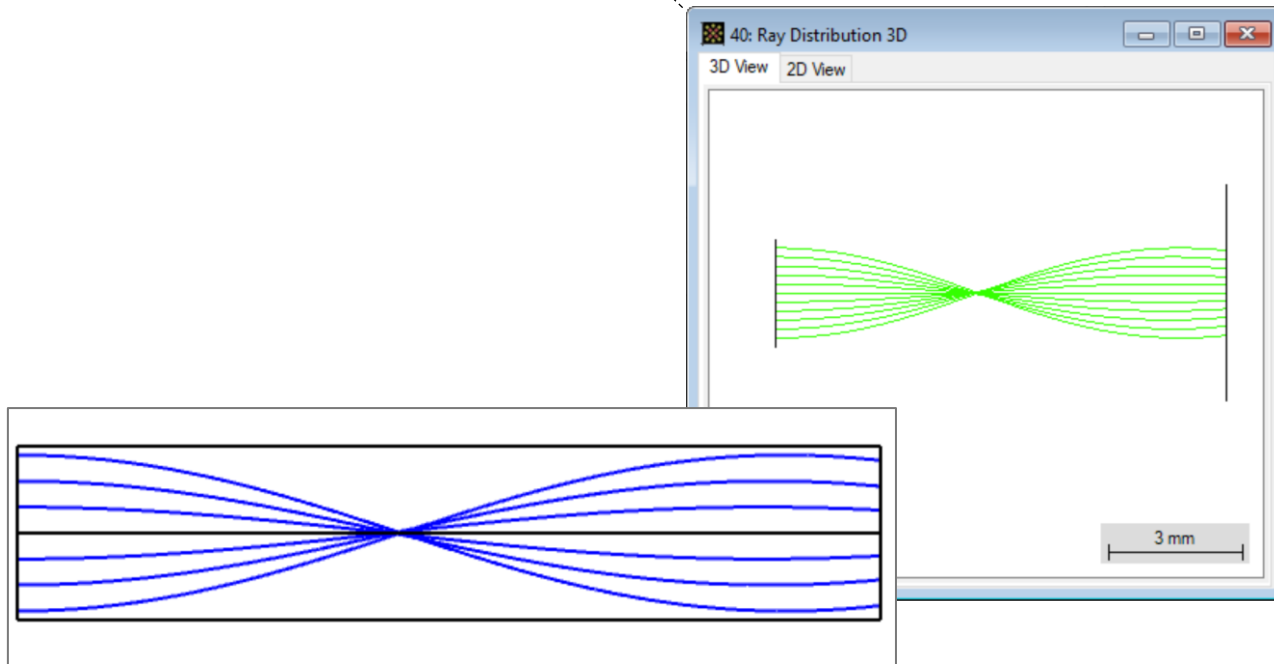
	0	1	2
0	-0.3	0.5	-0.4

Array Index #1 ->

# Imported GRIN Medium



# Results



*3D analysis in Zemax OpticStudio® for reference*

# Document Information

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title	Import of GRIN Medium from Zemax OpticStudio®
document code	Demo.28
version	1.0
VL version used for simulations	VirtualLab Fusion 2020.1
category	Demo
further reading	

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