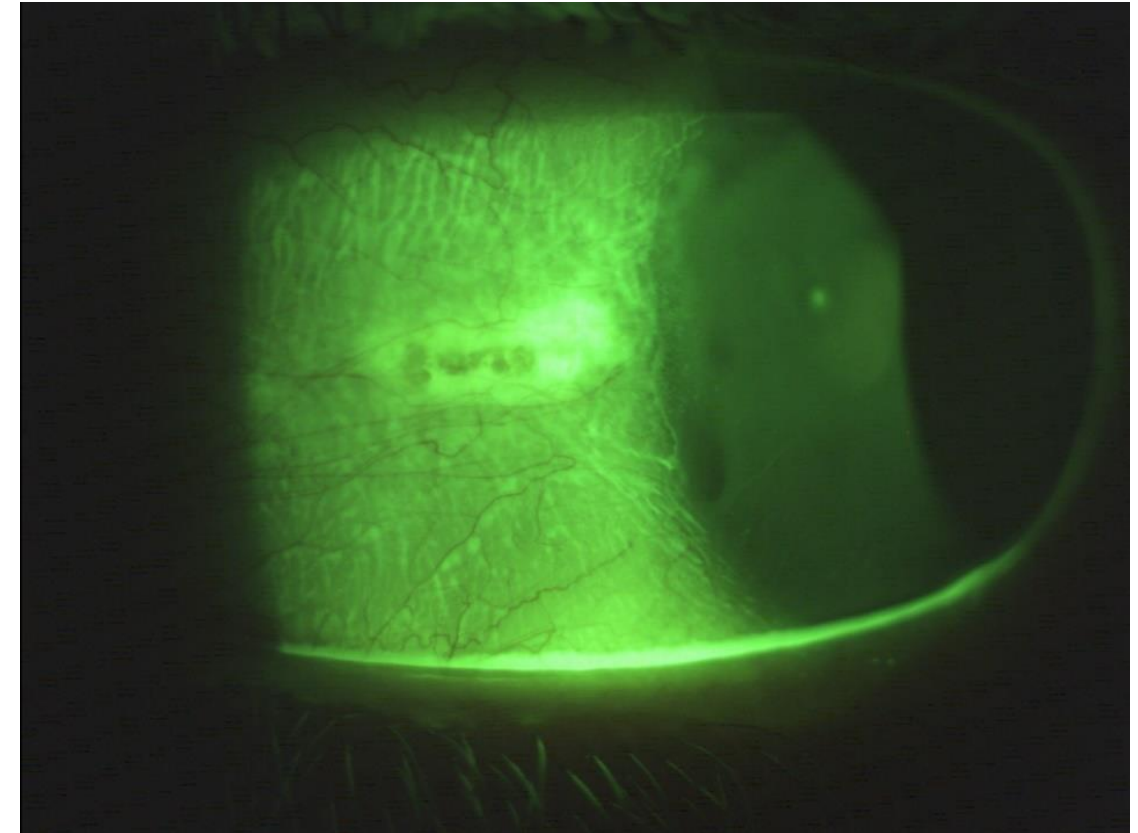


Designing a microvault using profilometry

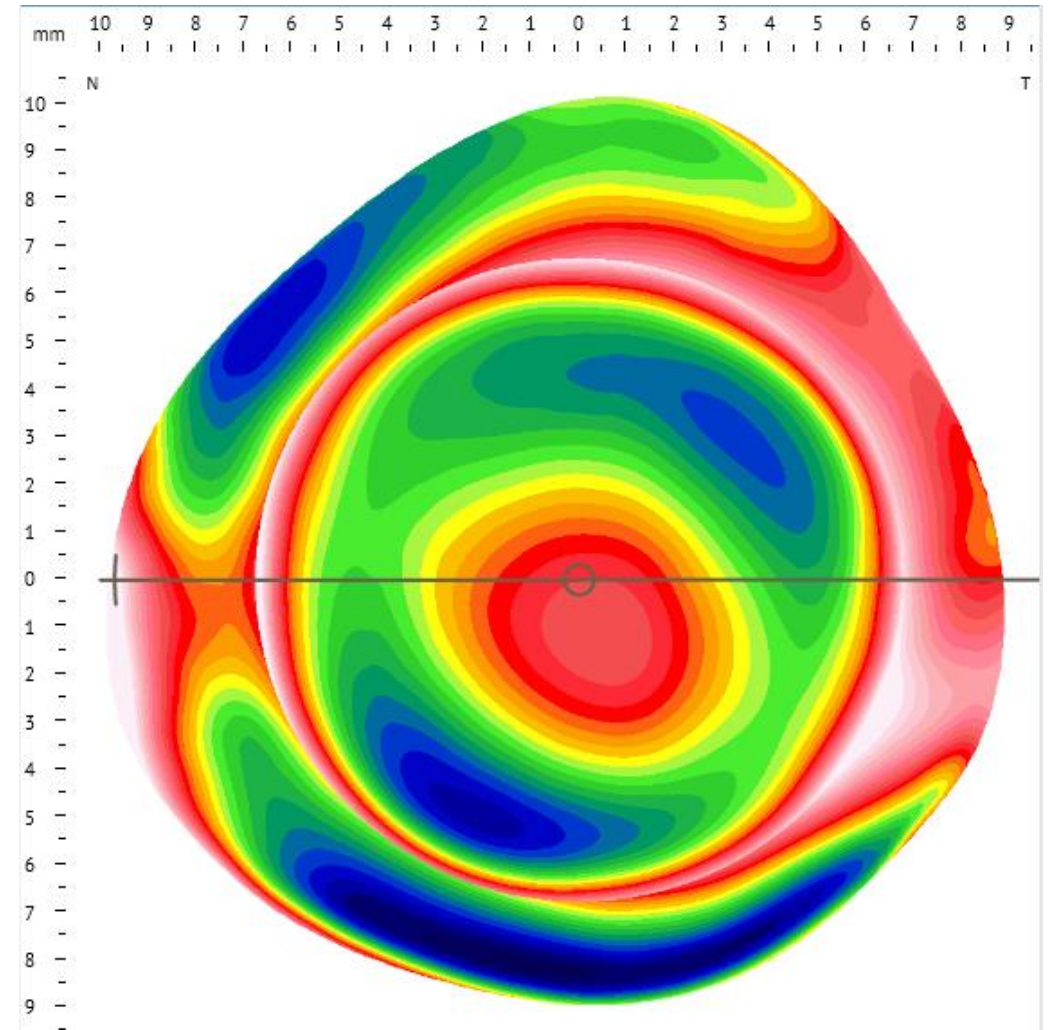
- Scleral lenses are often the best solution for irregular eyes
 - Offering higher vision
 - Higher comfort
- Scleral irregularities are a contra-indication?



Case: Keratoconus

- 40- year-old male
- Bilateral keratoconus

Sagittal height		
Fix rotation	<input checked="" type="checkbox"/>	
Chord length	17.00	<input checked="" type="checkbox"/>
Meridional	4.66mm	34.1°
		40.0°
360°	4.83mm	37.3°
Tsag	4.80mm	40.0°
Nsag	4.55mm	34.0°
Tsag - Nsag	0.24mm	
MINsag	4.66mm	@0.0°
MAXsag	4.97mm	@123.0°



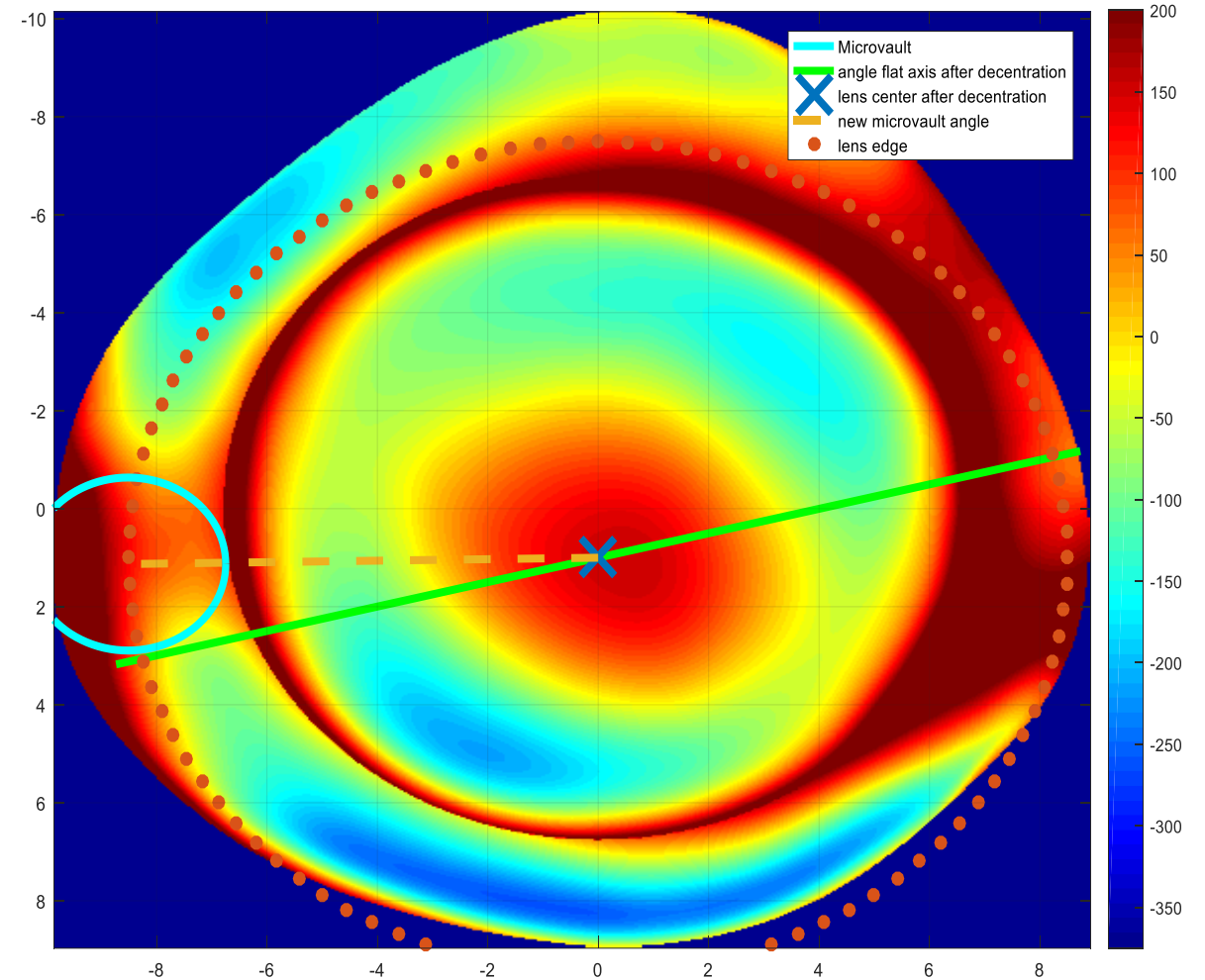
Method

- Based on scleral profilometry the next lens has been ordered:
 - Zenlens (B&L)
 - 17 mm prolate design
 - SAG 5100
 - Flat 5
 - Steep 4



Microvault design algorithm

- Microvault
 - Axis 167
 - Decentration 8.5 mm
 - Width 3 mm
 - Depth 100 microns



Conclusions

- Profilometry combined with new designs lead to a reduction of contra-indications
- Rotation and decentration require a trained lens fitter
- Technology offers better control and allows customized fits

