The X-Ray Optics for the High Angular Resolution Imager (HARI)

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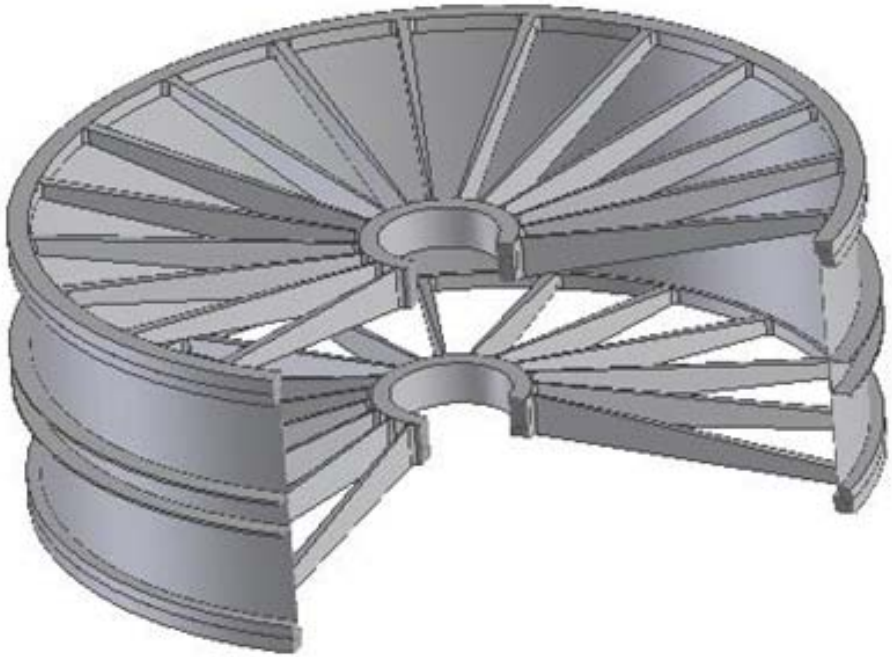
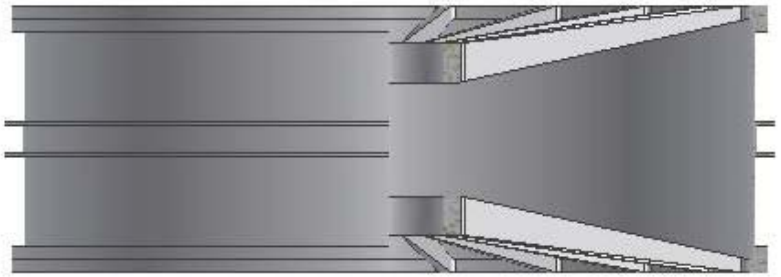
Basic Parameters (from EDGE design)

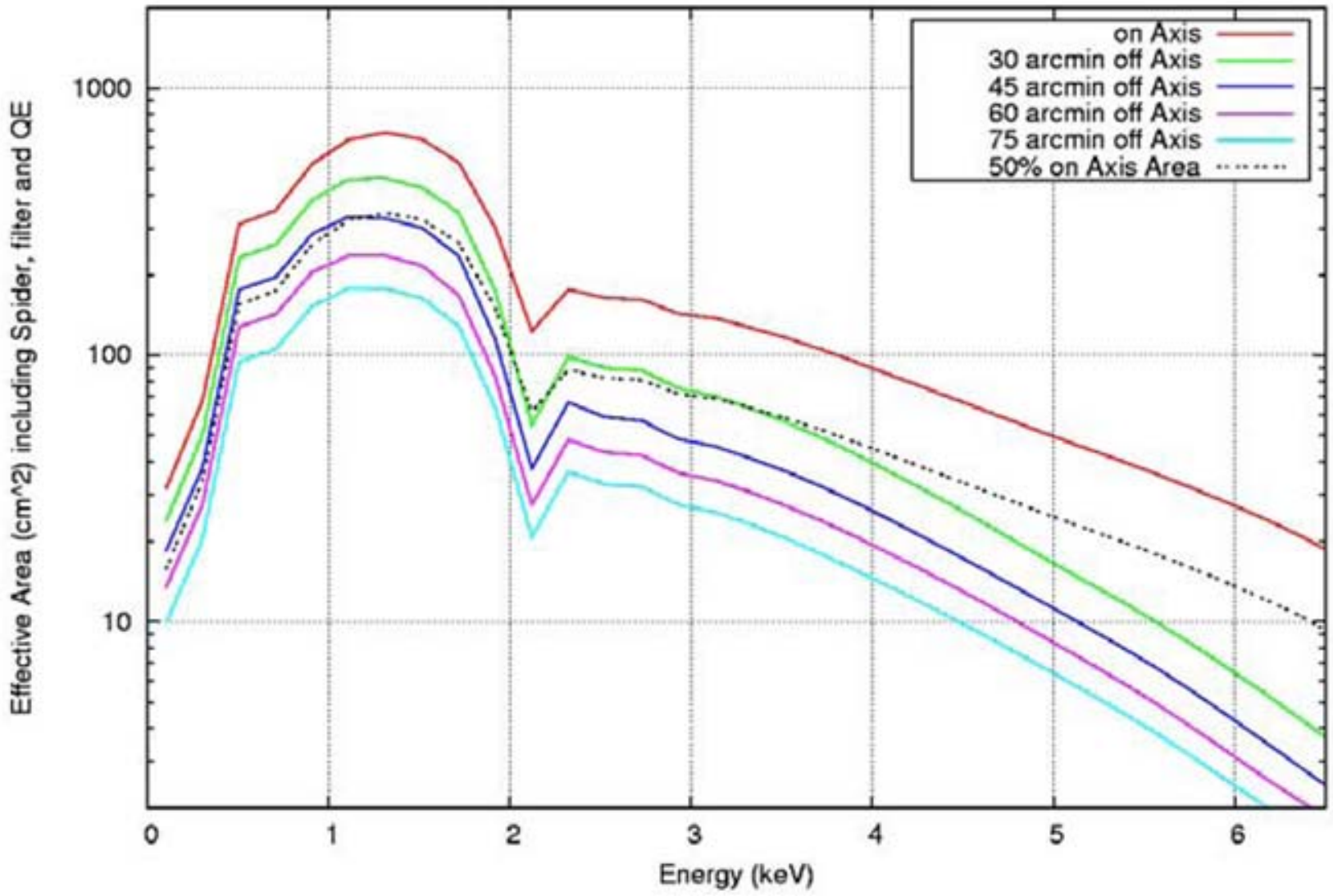
Focal length (cm)	**275**
Max diameter (cm)	**75**
Min diameter (cm)	**21**
Max segment length (cm)	**10**
Min segment length (cm)	**4.75**
Baseline design	
Shell thickness (cm)	**0.2**
Number of shells	**68**
Goal design:	
Shell thickness (cm)	**0.1**
Number of shells	**94**

Housing – (EDGE)

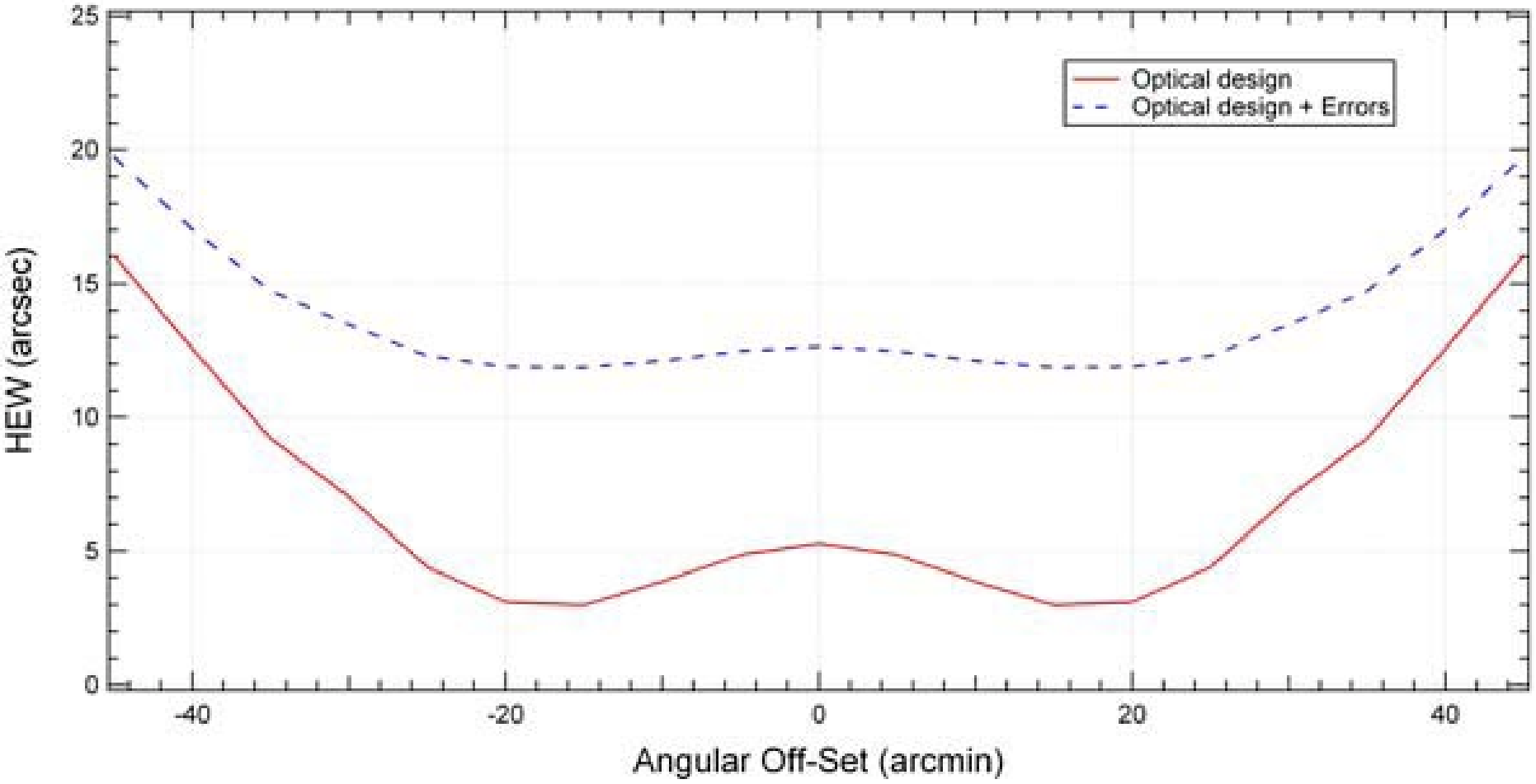




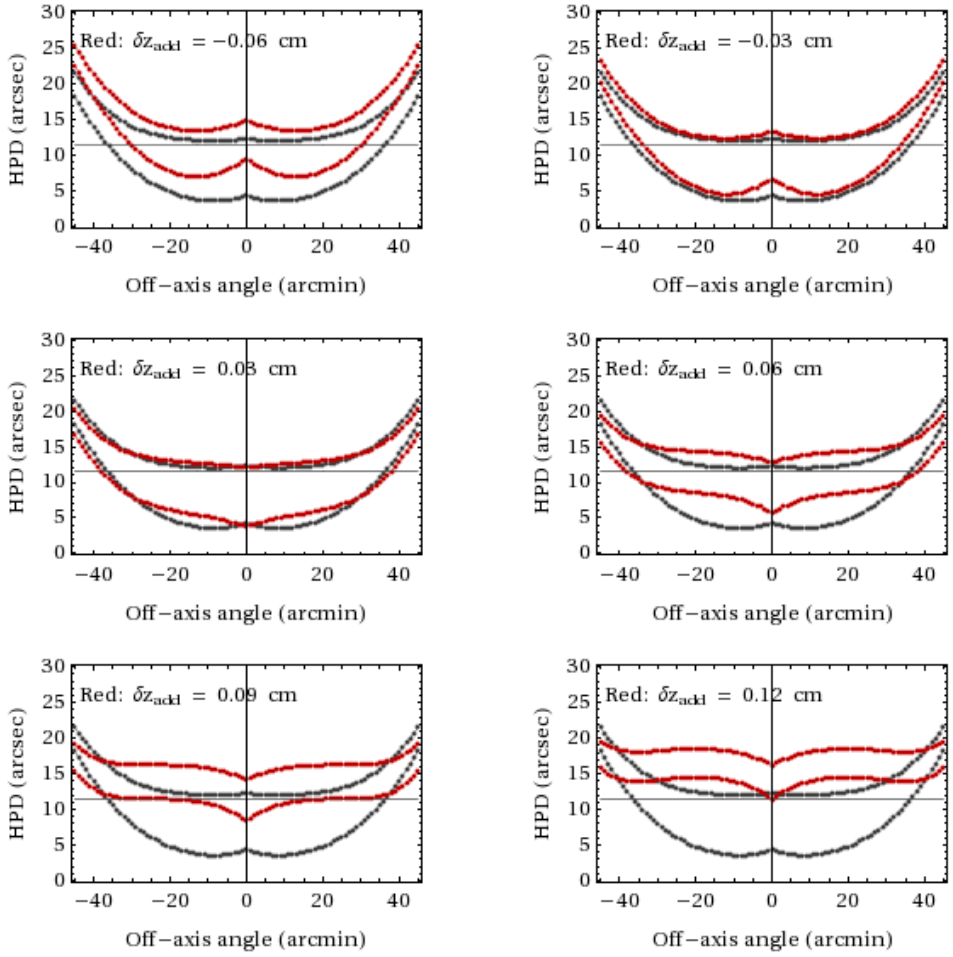
Effective Area vs Energy



Baseline Design – HEW vs θ



Study of Detector Offsets and Tilts



The Design Approach is not Optimum (Yet)

- **One is still designing the detector-optics combination in a somewhat ad-hoc way. Our goal is to be able to design HARI around the scientific performance and let the latter guide the system parameters.**

- **This does not mean that the current design is “bad”!**

- **But we need an agreed upon optimization criterion!**

THIS IS YOUR HOMEWORK PROBLEM