

EFFECT OF OZONE CROSS SECTIONS ON UMKEHR OZONE PROFILE RETRIEVAL

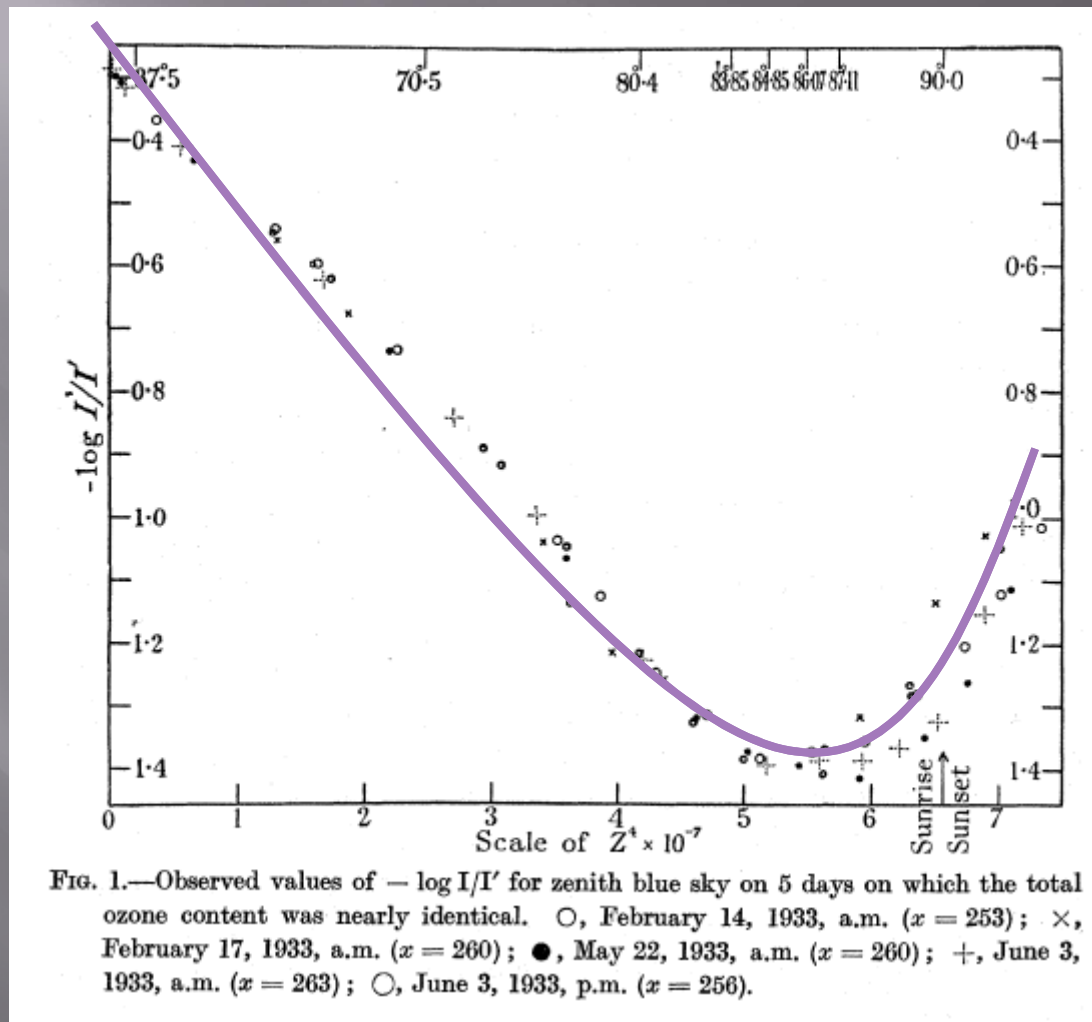
Petropavlovskikh, Evans, McConville,
Disterhoft

NOAA/ESRL/GMD
CIRES

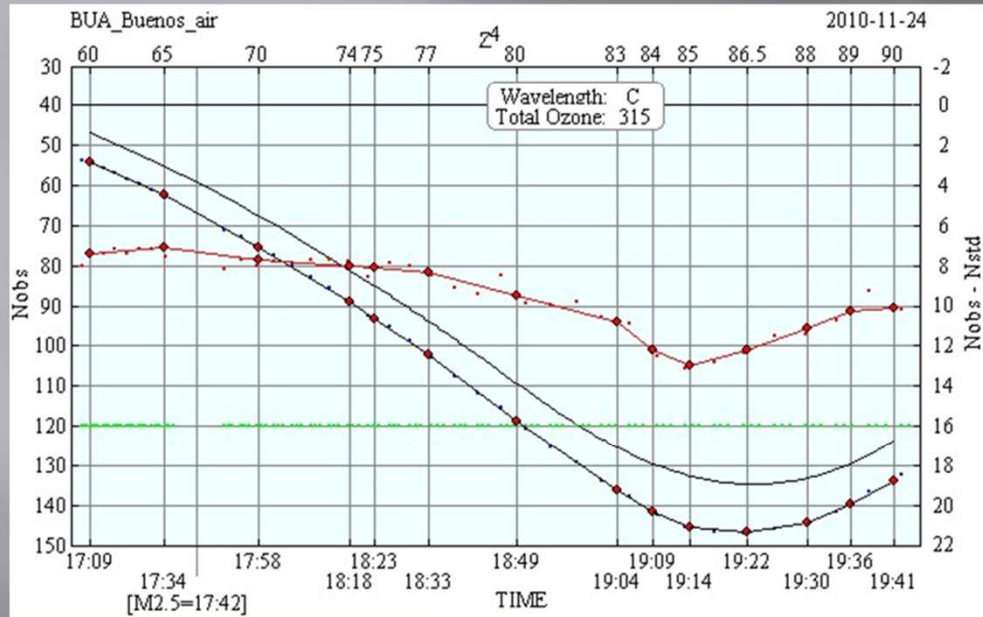
Umkehr measurements at Arosa, Switzerland, Instrument D001



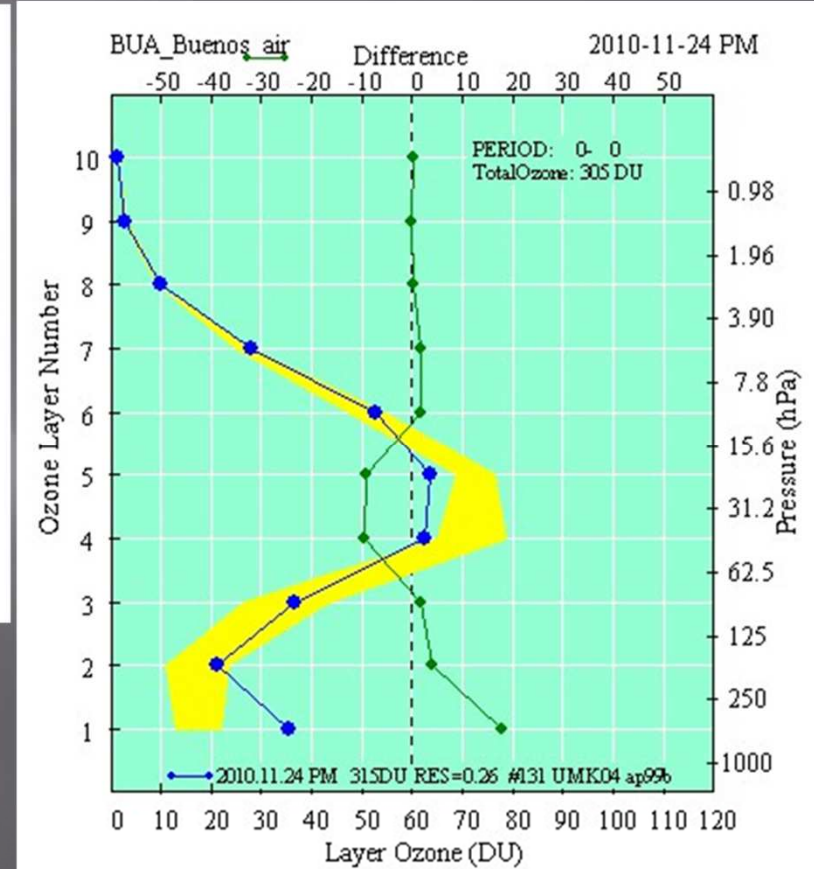
1933



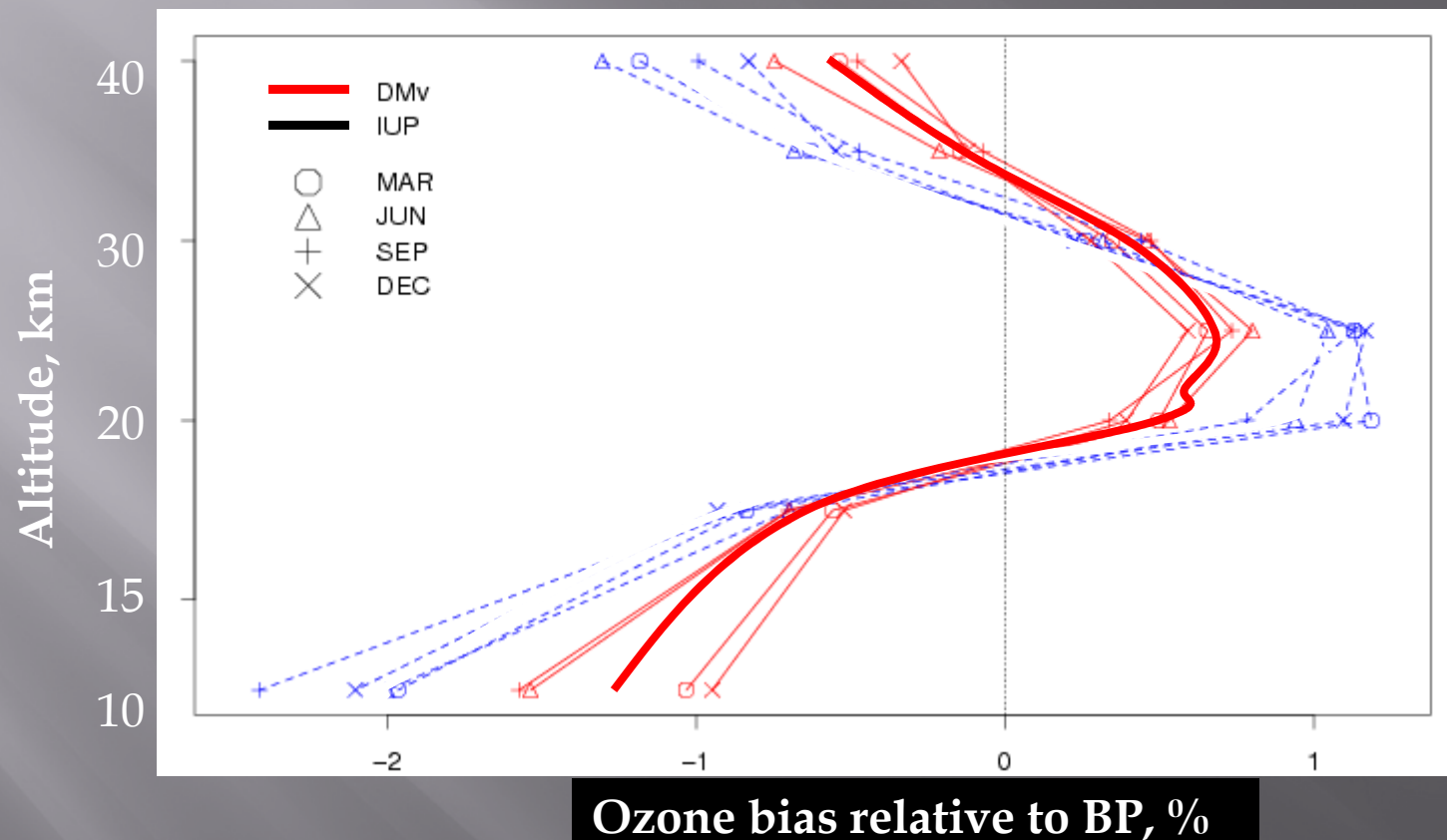
What We are doing today.



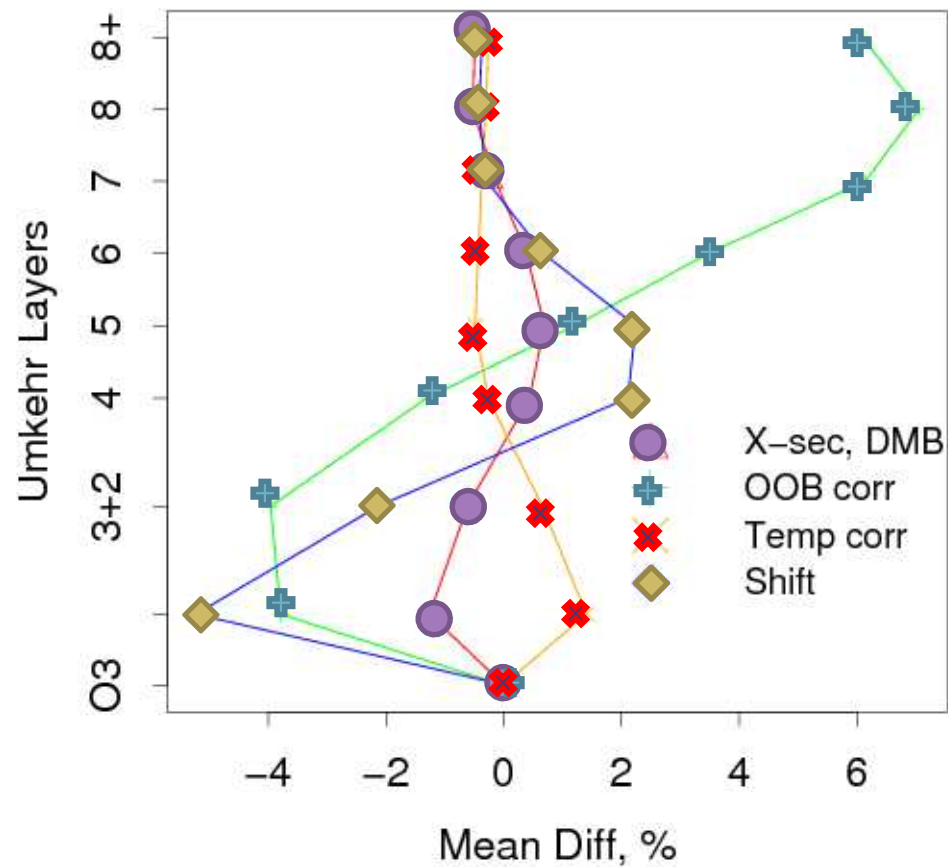
Readings plus Complex Algorithm
Plus Temperature Profile climatology
Plus Cross-section plus Total Ozone.



Dobson Umkehr, Boulder, 1979-2008

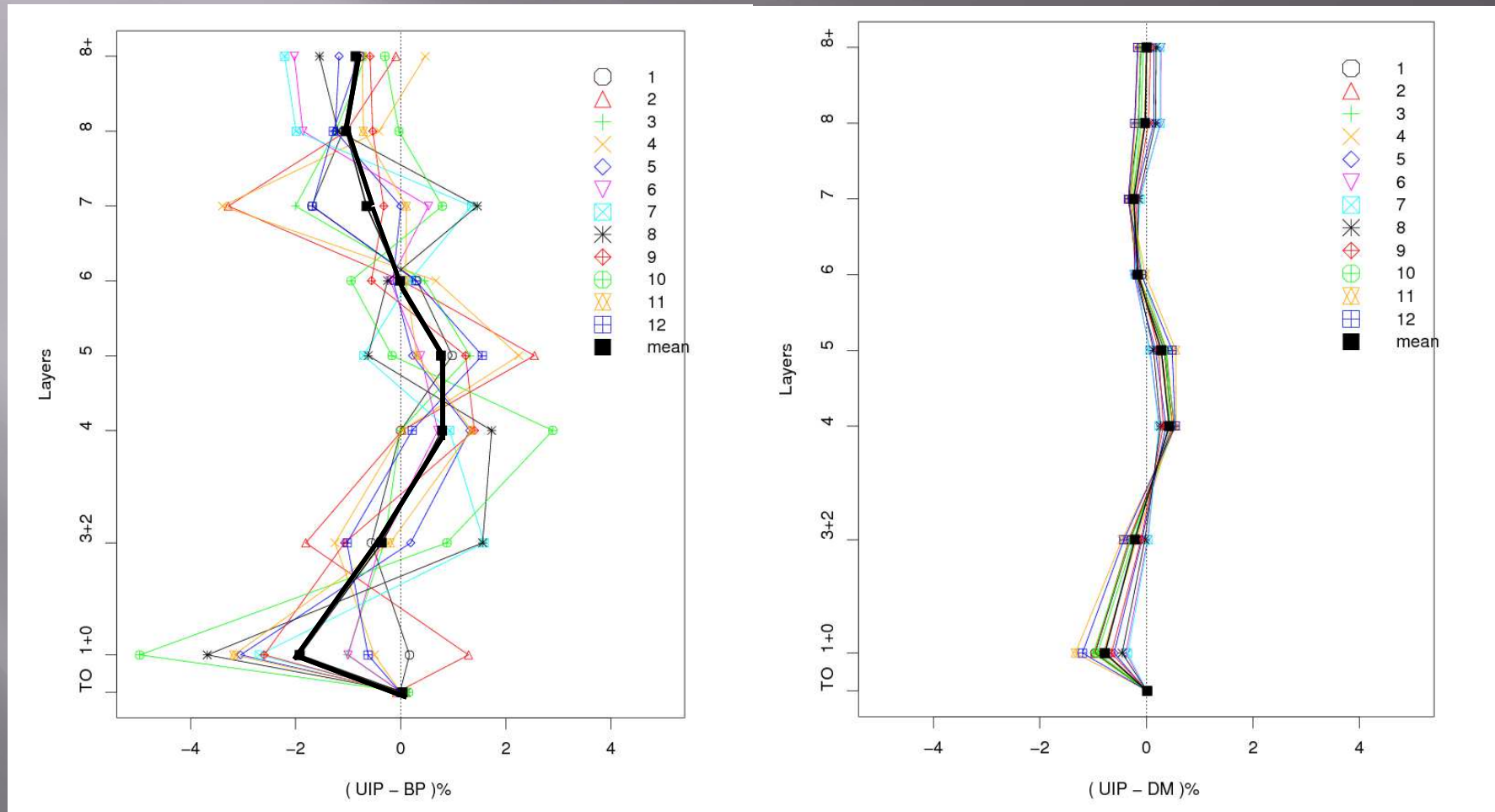


Other uncertainties in Dobson Umkehr ozone



Brewer Umkehr, Boulder, 2007-2010

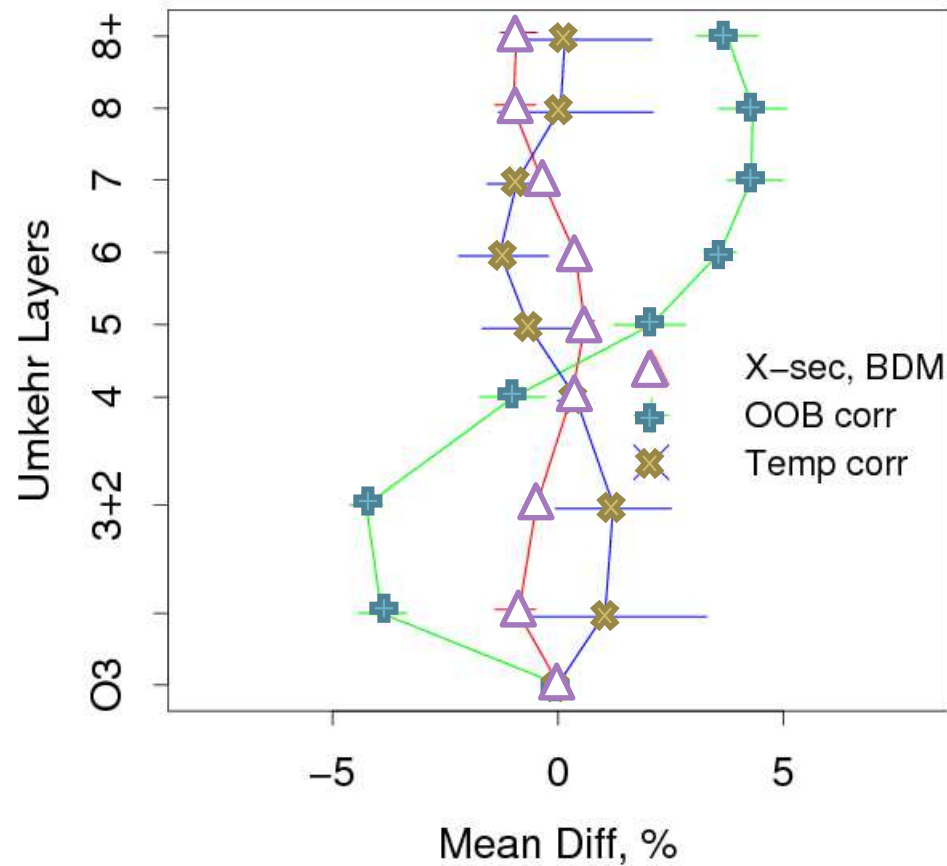
Seasonal differences for IUP vs BP Seasonal differences for IUP vs DMB



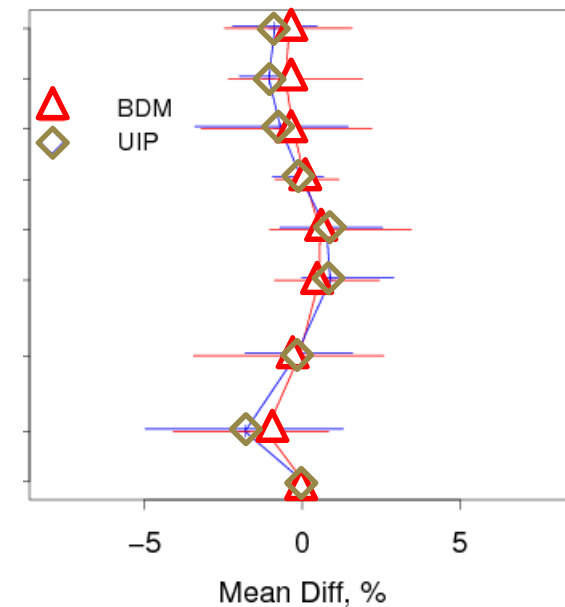
Total ozone is forced to be the same in the retrieval

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Geneva

Other uncertainties in Brewer data



DMB and IUP vs BP –
similar mean offsets
Horizontal lines
indicate seasonal
range of differences



Larger errors due to stray light

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Thank You for Your Attention!