

## Report (Suggestion)

1. Introduction (Z.Litynska, P.Koepke,)
2. UV Reconstruction (P.Koepke, H.Staiger, J.Verdebout, H.Slaper)
  - 2.1 UV Modelling with necessary input data (P.Koepke)
  - 2.2 Methods for spectral weighting (P.Koepke, H.Slaper)
  - 2.3 Station reconstruction (H.Staiger, J.Krzyścin, H. Slaper)
  - 2.4 Methods to get UV maps (J.Verdebout)
- 3 Measured UV (J. Gröbner)
  - 3.1 UV measurement methods (J.Gröbner)
  - 3.2 UV measurement quality (J.Gröbner)
4. Data (H.deBacker)
  - 4.1 Ozone (J.Krzyścin)
  - 4.2 Aerosol (N.Chubarova)
  - 4.3 Albedo (Laurent)
  - 4.4 Cloud information (H.Staiger, J.Kaurola, A.Lindfors, P.den Outer; J.Verdebout)
  - 4.5 Global irradiance (A.Lindfors, U.Feister)

## Report II

### 5. Uncertainty

5.1 Comparison of measured and modelled UV ( Natali, Colette, Harry)

Andreas

5.2 Uncertainty due to uncertain input data (H. Staiger; H. Slaper)

5.2 Uncertainty by using other input data (H. Slaper)

### 6. Results: UV Radiation in the past

6.1 Station results - erythemal weighted UV (H. Staiger, H. Slaper)

6.2 Maps - erythemal weighted UV (J. Verdebout, H. Staiger)

6.3 Temporal development, trend analysis - erythemal weighted UV (J.Krzyścin)

6.4 Variable weighting functions and effect on UV (A.Schmalwieser)

### 7. Conclusion

Applications for users --How to use spectral data with other weighting functions

References

UV web sites

Bureaucratic topics

Electronic Atlas

(~~~~~100 pages maps, 50 pages text~)

Publication by Shaker Verlag

Advantages:

ISBN  
Easy reprint  
Advertising

Costs:

	200 copies	300 copies
150 pages, 100 pages colour, paperback, DIN A4	3500,-- €	4750,-- €
150 pages, 100 pages colour, hardcover, DIN A4	4450,-- €	6050,-- €

## Report (Decision El Arenosillo)

Introduction (Z.Litynska, P.Koepke,)

UV Reconstruction background

- Basic methods with necessary input data (P.Koepke)
- UV measurement quality (J.Gröbner)

Data (H. de Backer)

- Ozone (J.Krzyścin)
- Aerosol (N.Chubarova)
- Albedo (Laurent)
- Cloud information (H.Staiger, J.Kaurola, A.Lindfors, P.den Outer; J.Verdebout)
- Global irradiance (A.Lindfors, U.Feister)
- Measured UV (J. Gröbner)

## Report II

Methods to get UV maps and station reconstruction (H.Staiger, J.Verdebout, H.Slaper)

UV Radiation in the past

- Maps (J.Verdebout)
- Station results (J.Krzyścin, H. Slaper),
- Validation against real measurements Ery ( Natali, Colette, Harry)
- Uncertainty analysis by using other input data (H. Slaper) UV Influence on ecosystem (A.Schmalwieser, WG3) Variable weighting functions

Applications for users -- user guide

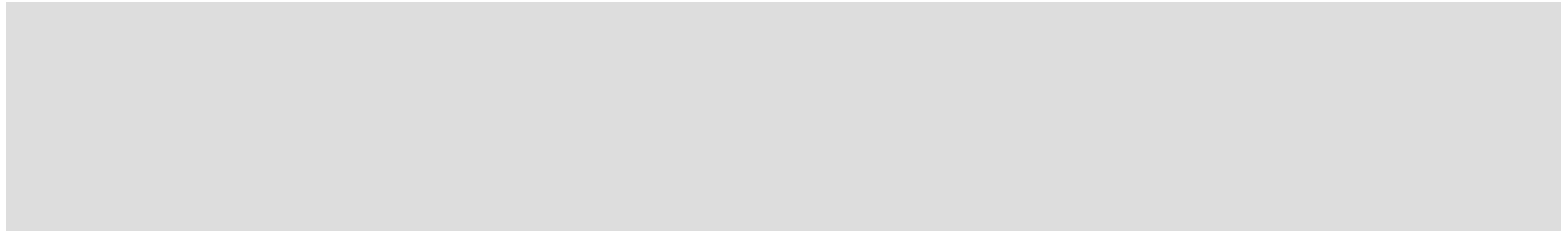
How to use spectral data with other weighting functions

References

UV web sites

Electronic Atlas

(~~~~~100 pages maps, 50 pages text~)



Booklet

Decision El Arenosillo:

Short version of the Report, created for public

## Booklet (Proposal Zenobia)

Title **UV RADIATION AND LIFE**

Authors xxx

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    - 2.2 UV measurements (*J. Groebner ?*)
    - 2.3 UV modelling (*P. Koepke ?*)
    - 2.4 UV climatology of Europe (*J. Verdebout, H. Staiger ??*)
  - 3) Biologically effective Radiation
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  - 4) Expectations for the future (*Z. Litynska; P. Koepke (M.Dameris)*)
- Appendix A: Reference Institutions in the COST726 Countries (*J. Bieszczuk-Jakubowska*)
- Appendix B: List of www pages with UV information (*J. Bieszczuk-Jakubowska*)
- Appendix C: List of reference publications (*J. Bieszczuk-Jakubowska*)



## Decisions

### E-atlas

Information of the report plus

- selection of the product (map or time series)

- showing large range of action spectra

- possibility of user to add own action spectrum

- possibility to model UV dosis for new action spectra, using the information given for the “some“avelengths or high spectral resolution data

## Decisions

### Further Publications

Quality assurance

Trend analysis

Combination with GISS

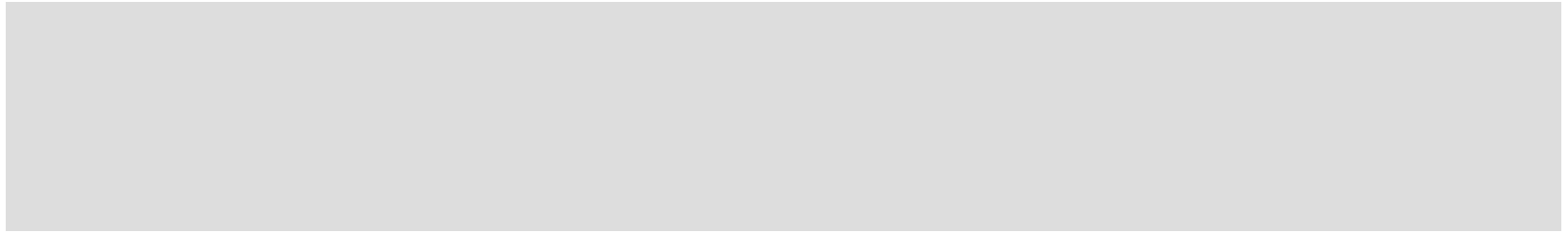
# Decisions

## Bureaucratic Questions

All Data free for non commercial scientific use,with COST  
acknowledge and reference to the report

Use on your own risk

Others



## Decisions

### General:

Time range:

for maps: 1958 – 2002

for time series selected stations: 50 years

Quantities:

Daily dose erythemally weighted Irradiance

Daily dose at „some“ wavelengths that can be used to model  
other weighting

## Decisions

### Atmospheric properties:

Ozone: D2 Munich

Aerosol: D4 Munich

Albedo: D5 Munich, plus information from Swiss snow line

Altitude effects: D6 Munich

Cloud effects: CMFsol after global irr measurements and ERA 40, interpolated to 1deg Spatial resolution, converted to CMFuv with high spatial resolution using dlat from jeans model

National delegates decide for additional data of measured solar global irradiance measurements for their, after quality check

Henning check the CMF maps with and without additional solar data

## Decisions

### Maps

Area: 20 W -35 E; 31 – 74 N .

Spatial resolution : 0.05 deg

Temporal resolution: daily doses (electronic atlas)  
shown as monthly mean (report)  
plus integration procedure for larger areas  
format usual for most users (GISS)

Interpolation scheme: as used by Jean

# Decisions

## Maps

Modelling procedure: Henning (corrected CMF) ; Jean (maps)



## Decisions

### Time series:

Temporal resolution: daily doses reconstructed from time series of global irradiation

Positions: >>79 Places with measured solar irradiance data  
Harry Slaper

Description: Trend etc from station data;  
station data can be used to check quality of the maps