



University of Tlemcen
Departement Hydraulique
doctoral program

Water resources management

Accredited by the MESRS

supported by the WESA program

Hydrological modelling of the Tafna basin.

(Northwest Algeria)

Supervisor:

Prof: **Baba Hamed Kamila** (UoT, Algeria)

Prof: **Christian Borgemeister** (ZEF, Germany)

Tutor: **Dr. Bernhard Tischbein** (ZEF, Germany)

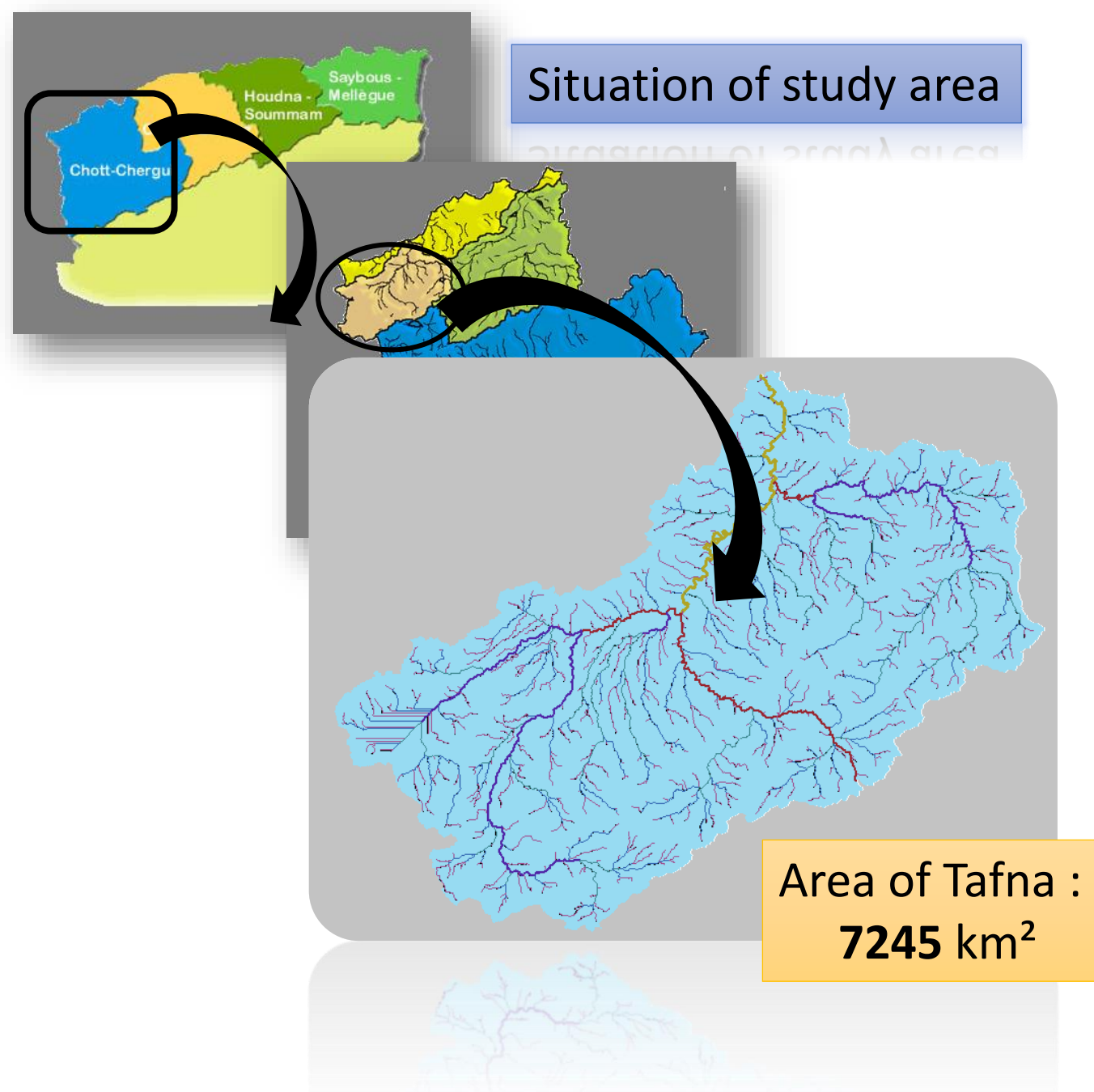
Dr. Navneet Kumar (ZEF, Germany)

Presented by:

Bougara Hanane

Objective

- To compare the performance of different hydrological models under different levels of data.
- Development of downscaling of GCM and RCM climate scenario for getting future forecast data of climate.
- Water allocation modelling will be performed based on climate scenarios and hydrological model simulation



Methodology

Test statistic

Randomness Tests

(correlation test)

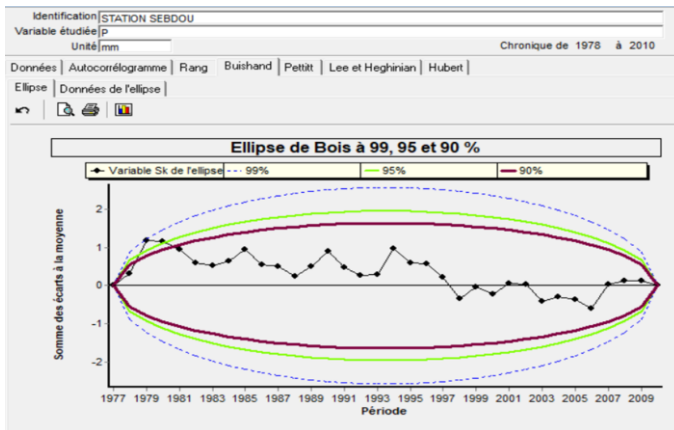
Statistical tests of homogeneity

- Hubert segmentation test
- Bayesian method Lee and Heghinian
- Pettitt's test

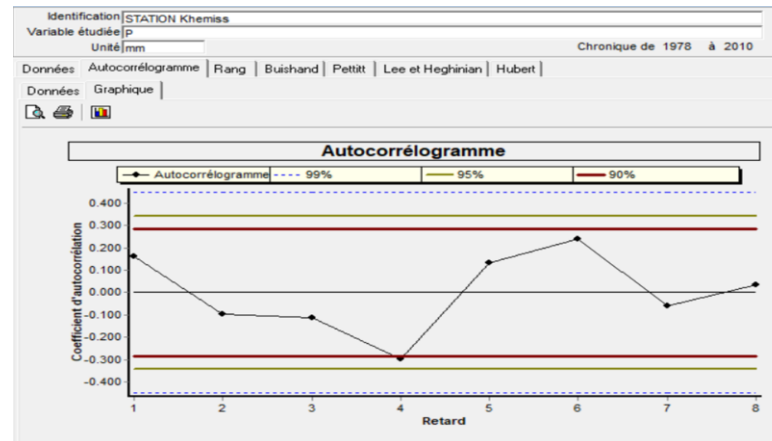
Results

1. Trend analysis of rainfall data

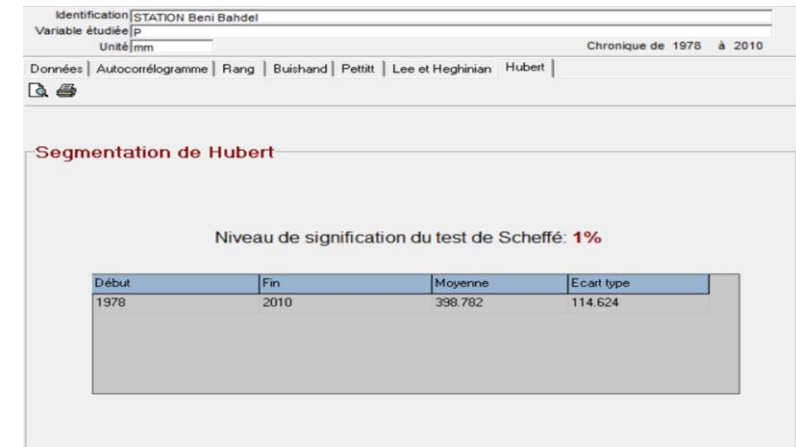
SEBDOU SUB BASIN



KHEMISS SUB BASIN



BENI BAHDEL SUB BASIN



Conclusion

Test statistic aid to detect if there is a significant change in a data series (try to understand the cause) and knowing the distribution of the data.

**THANK YOU FOR
YOUR ATTENTION**