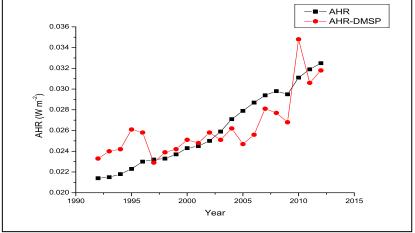
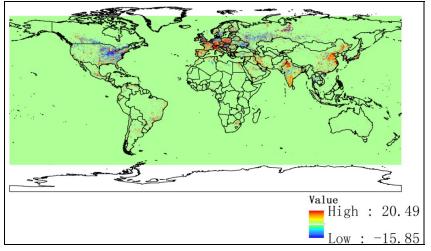
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← Fig.1 The global mean AHR statistically obtained from BP (in Black) and estimated global mean AHR from DMSP/OLS (in red) between 1992 and 2012.



 \leftarrow Discrepancy of global distribution of AHR between 2009 and 2000 by DMSP/OLS data (resolution: 0.1 $^\circ$ \times 0.1 $^\circ$, unit: W m-²).

• Due to the high-precision grid and unique ability to detect low levels of visible and near-infrared radiance at night, the DMSP/OLS data provides an effective way to estimate large-scale and high-resolution distribution of AHR. Above all, the results of global distribution of AHR by applying DMSP/OLS data is generally consistent with energy consumption statistics, while errors occur inevitably. This method provide us a new way to obtain credible large-scale continuous high-precision grid distribution of AHR, which is very important for the research of AHR in climate models.