

Publication

## Der Stern Sirius im Alten Ägypten

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Recorded dates of heliacal risings of the star Sirius as reported from ancient Egypt have been used for chronological purposes for more than 100 years. This paper presents new calculations of heliacal risings and settings of Sirius for different places in Egypt and discusses the influences of various parameters and their uncertainties on the results. Comparison with ancient Egyptian observations gives a mean value for the arcus visionis of Sirius of about  $10^{\circ}$ , with plausible values between  $9^{\circ}$  and  $11^{\circ}$  depending on the transparency of the atmosphere. This means that a date of a heliacal rising or setting of Sirius, which was recorded in the Egyptian calendar, can pin down the absolute dating of the observation to 12 years, if one assumes that the place of observation is known and if no further information, e.g. lunar data, is available. All results of the calculations are accessible online.

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