ied. This result agrees with Schuster et al. (2002) finding that the best months for photometric observations at SPM are October and November, when the atmospheric extinction is quite low ($<\kappa_y> \sim 0.12$) and the observing runs are mostly photometrically stable. So October and November are the months with higher atmospheric transparency and lowest atmospheric extinction.

The annual behavior of MODIS AOT during the years 2000–2008 yields mean values of 0.147 ± 0.103, 0.128 ± 0.090, 0.115 ± 0.081, 0.087 ± 0.066 at 4700, 5500, 6600 and 21300 Å, respectively.

Wavelength dependence of the aerosol optical thickness in the interval from 0.47 to 2.1 μm is analyzed for all the MODIS data assuming a power-law behavior for the aerosol scattering ($\tau_\lambda \propto \lambda^\alpha$) and indicates a slope $\alpha_{\rm OIR}$ with values between 0.27 (autumn), where the best atmospheric transparency conditions occur, and 0.35 (winter) where conditions are worse; while the 4700 to 6600 Å slope $\alpha_{\rm OP}$ has values from 0.62 (autumn) to 0.82 (winter). We conclude that for periods with higher atmospheric transparency the slope α for aerosol scattering is smaller and steepens for periods with more opacity.

We have also used the mean values for the AOT during the 2000–2008 studied period, which yields $\alpha_{\rm OIR} \sim 0.31 \pm 0.06$ ($\tau_\lambda \sim 0.0061\lambda^{-0.31}$) and $\alpha_{\rm OP} \sim 0.72 \pm 0.08$ ($\tau_\lambda \sim 0.0001\lambda^{-0.72}$) for the San Pedro Mártir location. The latter turns out to be somewhat smaller than the slope value obtained from stellar photometry by Schuster & Parrao (2001) of 0.87 for wavelengths from 0.3 to 1.1 μm. Our results confirm that the atmospheric transparency at SPM is excellent and that the best observing conditions may occur in the months of October and November.

Although we only obtained a partial climatology, since climatology requires a 20 year period, the results in the nine year period of MODIS data show that conditions over SPM are quite stable, possibly indicating that no dramatic changes in the AOT are expected. Nevertheless, further work with MODIS data is needed to obtain better estimates of the AOT, specially in the winter months of January and December, where the data are more scarce. The ambient aerosol optical thickness and the values of the aerosol spectral index of the San Pedro Mártir in Baja California astronomical site found in this paper, corroborate its high atmospheric transparency and strengthen its quality among the prime astronomical sites in the world. Finally, it is important that a long term ground-based campaign of aerosol optical depth measurements be carried out at SPM, for comparison with the MODIS AOT values obtained so far, and to establish the degree of confidence in the satellite measurements for this site.

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