

## References on Solar Magnetometry

This short list does not try to be comprehensive. It just contains the works cited during the lecture on magnetometry, plus a few general monographs that may be useful as reference books.

1. Polarization of the light and its various representations
  - Chandrasekhar (1950). Re-introduces the Stokes parameters defined some 100 years before by G. G. Stokes (1852, Trans. Camb. Phil. Soc. 9, 399). Short readable summary.
  - Shurcliff (1962). Old but classical text-book.
  - Azzam & Bashara (1989). Technical but complete monograph.
2. Introduction to radiative transfer for polarized light applied to Solar physics.
  - Rees (1987). *Gentle introduction*, as the title says
  - Landi Degl'Innocenti (1992). Complete introduction.
  - Jefferies et al. (1989). Comprehensive derivation of the radiative transfer equations from classical electrodynamics.
  - Landi Degl'Innocenti & Landi Degl'Innocenti (1972) and Landi Degl'Innocenti (1983). Quantum derivation.
  - Stenflo (1994). Full monograph with many specific applications.
  - Trujillo-Bueno et al. (2002). Proceedings of a school on Astrophysical Spectropolarimetry.
  - Landi Degl'Innocenti & Landolfi (2004). Monograph. It has it all!
3. Historical Papers
  - Unno (1956). Original derivation of the so-called Unno-Rachkovsky equations.
  - Rachkovsky (1962). Original paper, difficult to find.
4. Mueller matrix of a weakly polarizing optical system. Sánchez Almeida & Vela Villahoz (1993)
5. Equivalent Zeeman triplet: Beckers (1969), Landi Degl'Innocenti (1982).
6. Weak magnetic field approximation. Landi Degl'Innocenti & Landi Degl'Innocenti (1973). Jefferies & Mickey (1991).
7. Milne-Eddington solutions of the radiative transfer equations for polarized light. Landolfi & Degl'Innocenti (1982), Landi Degl'Innocenti & Landi Degl'Innocenti (1985).

8. Weakly polarized medium approximation. Sánchez Almeida & Trujillo Bueno (1999)
9. Continuum polarization. Kemp (1970).
10. Polarimeters. Baur (1981)
11. Instrumental Polarization. Sánchez Almeida et al. (1991). Capitani et al. (1989).
12. Seeing induced cross-talk. Lites (1987).
13. Cross-over effect. Grigorjev & Katz (1972). Sánchez Almeida & Lites (1992).
14. Inversions: Milne-Eddington, Skumanich & Lites (1987). MISMA, Sánchez Almeida (1997) PCA, Rees et al. (2000).
15. Line-Ratio Method. Stenflo (1973)
16. Numerical simulations of complex magnetic fields. Cattaneo (1999), (Vögler & Schüssler 2007).
17. Broad-Band Circular Polarization in Sunspots. Illing et al. (1974a), Illing et al. (1974b), Makita (1986).
18. Magnetometry with lines having hyperfine structure. López Ariste et al. (2002), Landi Degl'Innocenti (1975).
19. Hanle effect based magnetometry. Stenflo (1982), Faurobert-Scholl (1993).

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