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Complete Solution of Sun Tracking for Heliostat

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Abstract: A general solution of sun tracking for an arbitrarily oriented heliostat towards an arbitrarily located target on the earth is published. With the most general form of solar tracking formulae, it is seen that the used azimuth-elevation, spinning-elevation tracking formulae etc. are the special cases of it. The possibilities of utilizing the general solution and its significance in solar energy engineering are discussed.

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Key words: solar tracking, azimuth-elevation, spinning-elevation, optical

aberration, heliostat

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