Estimation of Shade Losses in Unlabeled PV Data

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We provide a methodology for estimating the losses due to shading for photovoltaic (PV) systems. We focus this work on estimating the losses from historical power production data that are unlabeled, i.e. power measurements with time stamps, but no other information such as site configuration or meteorological data. This approach is appropriate for analyzing field production data from fleets of distributed rooftop systems and is highly automatic, allowing for scaling to large fleets of heterogeneous PV systems.