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The pair-model of monopolar and dipolar moments of elemental electric scalar and magnetic vector charges

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A sequel to representing elemental sources of magnetic fields as elemental magnetic vector charges is realizing that electric and magnetic dipole moments are different classes of moments. The distinction between monopolar and dipolar moments becomes clearer when any distribution of electric scalar charge or magnetic vector charge is depicted as one or more pairs of charges with equal magnitudes. It is shown here that separation of the charges (electric scalar or magnetic vector) is essential for the very existence and other attributes of a dipole, but not for a monopole. These representations are markedly different from the traditional analogous representations and notions of electric and magnetic dipole moments as sources of corresponding fields or potentials. It also emphasizes that fields and potentials are generated by the sources and not by their moments; hence the difference between these two entities.

**Level (Hons, MSc,
 PhD, other)?**

other

**Consider for a student
 award (Yes / No)?**

No

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

Yes

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