Contribution ID: **346** Type: **Poster Presentation**

Elemental magnetic vector charges linked to zero outward magnetic flux from any surface enclosing non-dipolar magnetic sources

Thursday, 14 July 2011 17:00 (2 hours)

<p>A harmonious formulation of the inverse–square laws for fields shows that elemental sources are rightfully represented as scalars for both gravitational and electric fields, but as vectors for magnetic fields. This permits an effective simple illustration that, unlike the gravitational or electric flux, the magnetic flux out of any closed surface is zero irrespective of whether the enclosed magnetic source is dipolar or non-dipolar. Then Gauss' laws for gravitational, electric and magnetic fields can be re-stated as: Out of any enclosing surface, if the source is a scalar quantity then the net flux is equal to the source itself; whereas if the enclosed source is any vector quantity, the net flux is the scalar zero.

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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