Kinetic Helicity and X-Class Flares


National Solar Observatory, Tucson AZ

LoHCo Meeting, Stanford, 25 Jan 2005
How to relate flare activity with subsurface flows?
Kinetic helicity density, \( h = \mathbf{v} \cdot (\nabla \times \mathbf{v}) \)
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AR characteristics
Conclusion:

Strong active regions, strong flare activity, and large kinetic helicity go together.
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AR characteristics
Conclusion:

MDI and GONG show the same behavior, but kinetic helicity values are different.