

An update on the cosmo-seismic correlations: a manifestation of a charged dark matter stream?

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I'll report on progress with understanding the physics of the cosmo-seismic correlations. The main observations associated with the effect point to the role of both solar magnetism and lunar gravitational forces, although the latter does not appear to have a tidal character. In addition we observe a clear appearance of the sidereal day periodicity in both cosmic ray and earthquake data. None of the conventional scenarios considered so far does not seem to match the whole range of properties of the cosmo-seismic effect and its main properties, and it opens the stage for alternative explanations. Presently, the best candidate scenario we qualitatively take into account is a stream of charged dark matter particles which would be heavy enough to induce a seismic effect after being lensed or modulated by the nearby massive bodies and magnetic fields, and which could induce or generate radiation observable with standard means. The scale of consequences of such a scenario would be immense. For instance, we should be able to predict some earthquakes by monitoring cosmic ray sources moving within the Solar System, and we would have to revisit all the climate change models by considering the newly discovered external factor. An impact of a nearby dark stream could possibly be hardly noticed by individual, narrowly-focused observatories, but the observational chances should grow with adopting an unbiased, interdisciplinary approach where a combination of weak indications from distinct research areas could give a strong, unquestionable signature. We attempt to implement such an approach in CREDO, and everybody is invited to be a part of this quest.

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