

Minnesota researcher's findings on dark matter jibe with Italy's DAMA/LIBRA claims

May 5 2011, by Bob Yirka

(PhysOrg.com) -- Sparking controversy in the small circle of physicists working to resolve the issue of whether dark matter actually exists, Juan Collar, spokesman for the [CoGeNT](#) project in the Soudan mine in Minnesota, spoke recently at the American Physical Society meeting and disclosed that his team has found results similar to those experienced by the [DAMA/LIBRA](#) team in Italy over the past several years, which show an excess of low energy interactions in their germanium crystal detectors, that his group can't explain any other way but to ascribe it to the existence of dark matter.

The DAMA/LIBRA team has insisted for 12 years that the data it has found with its detectors backs up the theory that not only does dark matter exist, but that it can be shown to exist by seasonal changes in the amount of recoil hitting in their germanium [detectors](#). The idea is that because the Earth moves and supposed clouds of dark matter don't, there should be times of higher activity when the Earth is moving into or through an area of dense dark matter, and lower activity when it's not. This is the basis of the argument the DAMA/LIBRA team has had to explain the seasonal changes in the number of hits they see.

The problem with all this though is that there are other teams that have not been able to reproduce the results shown first by the DAMA/LIBRA team, and now by those with the CoGeNT team (most notably the Swiss XENON100 team.) Making the whole argument even more sensational

is that the CoGeNT team actually set out to prove to the world that the DAMA/LIBRA team was wrong.

All of the teams are working to prove or disprove the notion that theoretical particles of dark matter, called WIMPS, exist and thus can be used, or not to back up or refute many other theories that serve to explain many of the unexplained phenomena that exist in the universe; such as what holds everything together. Some theories suggest that if [dark matter](#) does truly exist, it likely makes up eighty percent of everything there is; if it doesn't however, a lot of [physicists](#) will be going back to the drawing board.

One thing is certain however, and that is much more research will have to be done, both by those that are seeing results and those that aren't, before anyone can even come close to claiming they understand the invisible forces that make the universe what it is.

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Citation: Minnesota researcher's findings on dark matter jibe with Italy's DAMA/LIBRA claims (2011, May 5) retrieved 18 April 2024 from <https://phys.org/news/2011-05-minnesota-dark-jibe-italy-damalibra.html>

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