

Universal Science - Shining a light on dark matter - Resources and links

Resources used in the presentation

Coffee Vectors by Vecteezy: <https://www.vecteezy.com/free-vector/coffee>

Milky Way simulation: <https://www.youtube.com/watch?v=OltYfc38bno>

How to decorate a dark matter cake: <https://www.youtube.com/watch?v=VCvdvhihCJg>

Space-time distortion gif, Abel M'Vada: <https://abelmvada.tumblr.com/post/125467092707/i-curve-in-the-presence-of-your-mass>

Gravitational lensing gif, James Zanoni, <https://jameszanoni.tumblr.com>

Simulations of the bullet cluster with different kinds of dark matter: https://www.youtube.com/watch?v=W__AT3RMS-s&list=PL2jx2-_XO34yTxB1NfPJzkgADVSKkhSzK&index=5&t=0s

Galaxy formation simulations were performed at the [National Center for Supercomputer Applications](#) by [Andrey Kravtsov](#) (The University of Chicago) and [Anatoly Klypin](#) (New Mexico State University).

Visualizations by [Andrey Kravtsov](#).

Axion detergent photo courtesy of Frank Wilczek, <https://www.quantamagazine.org/how-axions-may-explain-times-arrow-20160107/>

Source of neutrino facts: <https://icecube.wisc.edu/news/view/546>

IAXO/CAST: <https://cerncourier.com/a/iaxo-the-international-axion-observatory/>

<https://cerncourier.com/a/casts-first-decade-of-solar-axion-research/>

Xenon experiment: http://xenon.astro.columbia.edu/XENON100_Experiment/ <http://www.xenonit.org>

IceCube experiment: <https://sci.esa.int/web/integral/-/60493-icecube-neutrino-detection>, <https://icecube.wisc.edu>

Icons taken from <http://www.toicon.com/>, nounproject.com

Extra information:

Gravitational lensing in action: <https://www.spacetelescope.org/videos/heic1106a/>

Try it at home with a wine glass <https://www.youtube.com/watch?v=vLp6CwElGP4>

Don Lincoln (Fermilab scientist) explains gravitational lensing: <https://www.youtube.com/watch?v=4Z71RtwoOas>

Symmetry articles on DM: <https://www.symmetrymagazine.org/collection/dark-matter-101>

ATLAS experiment at the LHC, feature article on dark matter: <https://atlas.cern/updates/atlas-feature/dark-matter>