
Subject: 28kHz standing waves and diffraction schlieren demo

Posted by [grindstone](#) on Sat, 17 Jul 2021 15:28:08 GMT

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Not so pi-specific, but I think I've watched Wayne post the phrase "standing wave" more times than anyone on the web so thought to post here.

<https://www.youtube.com/watch?v=VrgyKFBPQW4>

Part 3 is a bit cooler when he levitates some balls in the standing wave. The temperature/density refraction thing is cool, too. Well, it's all more interesting than doing my Saturday work list... Part I starts here if you want the start -- that's the sort of room acoustics demo :)

<https://www.youtube.com/watch?v=MBPh410Gnes>

Almost makes a guy miss school. Hope everyone is well!

Subject: Re: 28kHz standing waves and diffraction schlieren demo

Posted by [Wayne Parham](#) on Sat, 17 Jul 2021 19:53:25 GMT

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Super groovy cool!

Thanks for posting that here!

Subject: Re: 28kHz standing waves and diffraction schlieren demo

Posted by [Rusty](#) on Sat, 17 Jul 2021 23:53:59 GMT

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Nothing like a good visual to make sense of a concept. Now I get diffraction and standing waves better than ever. On a similar note sort of by way of the strobe effect. I went to a ballet performance once and saw a really cool demonstration of dance using strobe with music applied in layers from a cellist laying down repeating loop tracks of his instrument. The dancer came on to interpret the music and then the stage went dark and strobe applied as the dancer perfectly did jumps with his legs outstretched. Like the sound waves, he appeared frozen in time, but moving across the stage like he was floating. It was phenomenal. I wished I could find a similar scene on youtube, but this can give a modest take on it. At the 31 mark. It was amazing physical skill and timing by the dancer. Coolest damn thing I ever saw.

<https://www.youtube.com/watch?v=UB1ZnvCuXzg>

Subject: Re: 28kHz standing waves and diffraction schlieren demo

Posted by [grindstone](#) on Mon, 19 Jul 2021 02:22:57 GMT

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Sounds cool. Watching your ballet-guy, however, just made me think of those original efforts in trying to determine galloping horse footwork :)

File Attachments

1) [edweard_muybridge_fast_motion_1878.jpg](#), downloaded 269 times

Subject: Re: 28kHz standing waves and diffraction schlieren demo

Posted by [Barryso](#) on Mon, 19 Jul 2021 17:19:14 GMT

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Up until the Muybridge photos nobody could say for sure if all of a horses legs were off the ground when they ran. These photos were proof.

It was a big deal at the time.
