

Interference in Surveying

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SUMMARY

INTERFERENCE - the phenomenon of the a new, spatial pattern of the wave formation as a result of overlapping (superposition) of two or more waves. Usually refers to the interaction of waves that are correlated because they come from the same source or because they have the same or nearly the same frequency. Interference of waves consistent (coherent) gives a spatially constant wave amplitude distribution. Utilisation interference phenomena – examples: 1. Precise measurement of the distance from the source to the detector wave-interference rangefinders, gravity meters. Measurement of displacement and shape of objects. 2. Holography - a technique for obtaining spatial images with the method of reconstruction of the wave. 3. Noise suppression by means of generating sound waves in opposite phase to the noise produced by a device. 4. In telecommunication - the division of the area of the so-called cell communication network in order to obtain the possibility of an independent transmission of signals (UMTS technology).