

A cluster of many small holes with negative imaginary surface impedances may generate a negative refraction index

Alsaedi, Ahmed; Ahmad, Bashir; **Challa, Durga Prasad**; Kirane, Mokhtar; Sini, Mourad Mathematical methods in the applied sciences 2016 / p. 3607-3622 : ill <https://doi.org/10.1002/mma.3805> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Direct scattering by a sound hard small body

Challa, Durga Prasad Imaging, Multi-Scale and High Contrast Partial Differential Equations : Seoul ICM 2014 Satellite Conference Imaging, Multi-scale and High Contrast PDEs, August 7-9, 2014, Daejeon, Korea 2016 / p. 131-138 <http://dx.doi.org/10.1090/conm/660>

The equivalent medium for the elastic scattering by many small rigid bodies and applications

Al-Musallam, Fadhel; **Challa, Durga Prasad**; Sini, Mourad IMA Journal of Applied Mathematics (Institute of Mathematics and Its Applications) 2016 / p. 1020 - 1050 <https://doi.org/10.1093/imamat/hxw042> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Extraction of the index of refraction by embedding multiple small inclusions

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The Foldy-Lax approximation of the scattered waves by many small bodies for the Lamé system

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Location and size estimation of small rigid bodies using elastic far-fields

Al-Musallam, Fadhel; **Challa, Durga Prasad**; Sini, Mourad A Panorama of Mathematics : Pure and Applied : Conference Mathematics and its Applications, November 14-17, 2014, Kuwait University, Safat, Kuwait 2016 / p. 33-46 <http://dx.doi.org/10.1090/conm/658>

Multiscale analysis of the acoustic scattering by many scatterers of impedance type

Challa, Durga Prasad; Sini, Mourad Zeitschrift für angewandte Mathematik und Physik 2016 / art. 58, p. 1-31 : ill <https://doi.org/10.1007/s00033-016-0652-0> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)