FUNDAMENTAL SOLUTIONS OF POROELASTICITY

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Mindlin [1] in 1936 found the point force solution of an elastic half plane using the method of superposition. This paper examines the point force and point source solutions of poroelasticity, which are also created using superposition. These singular solutions can be used in an integral equation method or the method of fundamental solutions for the numerical solution of boundary value problems [2].

References

[1] Mindlin, R.D., "Force at a point in the interior of a semi-infinite solid," Physics., 7, 195-202, 1936.
[2] Cheng, A.H.-D. and Detournay, E., "On singular integral equations and fundamental solutions of poroelasticity," International Journal of Solids and Structures, Vol. 35, No. 34/35, pp. 4521–4555, 1998.

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