

[Andersson, L.-E.](#)

Existence results for quasistatic contact problems with Coulomb friction. (English)

[Zbl 0972.35058](#)

[Appl. Math. Optimization](#) 42, No. 2, 169-202 (2000).

The author considered an elastic fractional, quasistatic, contact problem with a Signorini non-penetration condition as well as local Coulomb's friction law and proved the existence of its solution. The problem is formulated as a time-dependent variational problem. In fact, the author formulated three auxiliary problems involving regularized friction terms for the variational problem. With the help of these auxiliary problems and so-called normal compliance penalization, the analysis is carried out.

Reviewer: [Qamrul Hasan Ansari \(Aligarh\)](#)

MSC:

[35K85](#) Unilateral problems for linear parabolic equations and variational inequalities with linear parabolic operators

[74M10](#) Friction in solid mechanics

[74M15](#) Contact in solid mechanics

Cited in **26** Documents

Keywords:

[Signorini non-penetration condition](#); [penalization](#)

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