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Povzetek

Delo obravnava reševanje linearizirane Boltzmannove enačbe za plin v notranjosti, to je vsaj nekaj prostih poti stran od stene posode, s pomočjo perturbacijske metode, kar ustreza Chapman-Enskogovi metodi za reševanje nelinearne Boltzmannove enačbe. Problem je analogen singularnim perturbacijskim problemom pri diferencialnih enačbah. Rešitev je izražena v obliki vrste. Izpeljan je zadosten pogoj za konvergenco vrste pri predpostavki, da inverzni operator trkov preslika porazdelitveno funkcijo, ki je omejena s potenco hitrosti, v funkcijo, ki je omejena z isto potenco hitrosti.

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