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**(54) Title (EN):** MAINTAINING PERFORMANCE IN THE PRESENCE OF INSERTIONS, DELETIONS, AND STREAMING QUERIES

**(54) Title (FR):** MAINTIEN DE L'EFFICACITÉ EN PRÉSENCE D'INSERTIONS, DE SUPPRESSIONS ET D'INTERROGATIONS DE DIFFUSION EN CONTINU

**(57) Abstract:**

**(EN):** Systems, methods, devices, and non-transitory media of the various embodiments enable the query execution graph for insertions, deletions, and streaming queries to be manipulated to maximize a portion of the query execution that is independent of data changes.

**(FR):** Conformément à différents modes de réalisation, la présente invention concerne des systèmes, des procédés, des dispositifs et des supports non transitoires qui permettent au graphique d'exécution d'interrogation pour des insertions, des suppressions et des interrogations de diffusion en continu d'être manipulé pour rendre maximale une partie de l'exécution d'interrogation qui est indépendante de changements de données.

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### **Declarations:**

Declaration made as applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate

Declaration made as applicant's entitlement, as at the international filing date, to claim the priority of the earlier application, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii))