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Adaptive userspace spinlocks with rseq

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Implementing efficient spinlocks in userspace is not possible yet in Linux, even after years of different approaches and proposed solutions. The main gap to achieve it is the lack of ABI providing an easy and low-overhead way to check if the current lock holder is running or not.

In this session, we are going to present the problem, and to propose a solution for it using the restartable sequences infrastructure as means to expose the thread state to userspace in a cheap way, without requiring system calls.

RFC: <https://lore.kernel.org/lkml/20230529191416.53955-1-mathieu.desnoyers@efficios.com/>

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