schedule CPU H2D force contribution in separate stream

10/22/2019 12:19 AM - Szilárd Páll

Status: New
Priority: Normal
Assignee: mdrun
Category: mdrun
Target version: 2021-infrastructure-stable
Difficulty: uncategorized

Description
In order to be able to overlap the H2D copy of CPU force contribution with compute kernels running on the GPU, the copy needs to be scheduled in a different stream than the local/nonlocal NB streams where it it done currently. In the current setup, unless PME completes significantly later than the PP tasks, most/all H2D time ends up non-overlapped.

Related issues:
- Related to GROMACS - Feature #2888: CUDA Update and Constraints module
- Related to GROMACS - Feature #2817: GPU X/F buffer ops
- Related to GROMACS - Feature #2890: GPU Halo Exchange
- Related to GROMACS - Task #3170: investigate GPU f buffer ops use cases

History
#1 - 10/22/2019 12:20 AM - Szilárd Páll
- Related to Feature #2888: CUDA Update and Constraints module added

#2 - 10/22/2019 12:20 AM - Szilárd Páll
- Related to Feature #2817: GPU X/F buffer ops added

#3 - 10/22/2019 12:20 AM - Szilárd Páll
- Related to Feature #2890: GPU Halo Exchange added

#4 - 11/14/2019 06:38 PM - Szilárd Páll
- Related to Task #3170: investigate GPU f buffer ops use cases added

#5 - 11/29/2019 12:14 AM - Szilárd Páll
- Target version changed from 2020 to 2020-rc1

#6 - 12/20/2019 08:33 AM - Paul Bauer
- Target version changed from 2020-rc1 to 2021-infrastructure-stable

doesn't seem to be happening