The \checkmark signifies, that a case has no data race and would pass a data race check.

The **X** signifies, that a case has a data race and would not pass a data race check.

1 Categorised for Coverd Hazard Type

	MPI		Open-	SHMEM	NV-	SHMEM	Hybrid	
The (potential) data race occurs	1	X	1	X	1	X	1	X
due to a dirty read initialised on the same rank	-	1	-	2	-	3	-	-
due to a dirty write initialised on the same rank	_	4	_	5	-	6	7	8
due to a dirty read initialised on different ranks	_	9	_	10	-	11	_	-
due to a dirty write initialised on different ranks	_	12	_	13	-	14	-	-
while using lock-unlock style synchronisation	15	16	17	18	19	20	-	-
while using wait style synchronisation	21	22	23	24	25	26	-	-
while using collective style synchronisation	27	28	29	30	31	32	-	-
with the sync being dependant on a handle	33	34	35	36	37	38	-	-
using P2P communication	39	40	_	_	-	-	-	-
using collective communication	41	42	_	_	-	-	-	-
using RMA communication	43	44	45	46	47	48	-	-
using custom datatypes	49	50	-	-	-	-	-	-
using operations with atomicity guarantees	51	52	53	54	55	56	-	-
using inter- & intra-node-parallelism (e.g. OpenMP)	57	58	59	60	61	62	-	-
in nested function calls	63	64	65	66	67	68	-	-
in a recursive function call	69	70	_	_	-	-	-	-
in a function called by a pointer	71	72	73	74	75	76	-	-
on an aliased memory region.	77	78	79	80	81	82	-	-
due to the sync not applying to the affected memory	_	_	_	_	83	84	-	-
with comm relevant handles stored in lists	85	86	-	-	-	-	-	-
using multiple syncs on different memory regions	87	88	_	_	89	90	-	-
using (non-)overlapping regions of the same array	91	_	92	-	-	-	-	-
in a proxy app	93	-	94	-	-	-	-	-

- 1. MBB/level1/COLL/LocalConcurrency-mpi_iallreduce-001.c
- 2. RRB/SHMEM/conflict/002-shmem-conflict-putnbi-store-local-yes.c
- 3. RRB/NVSHMEM/hostInitiated/conflict/002-nvshmem-conflict-putnbi-store-local-yes.cpp
- $4. \verb| MBB/level1/RMA/LocalConcurrency-fence-get_get-001.c|\\$
- 5. RRB/SHMEM/conflict/005-shmem-conflict-getnbi-store-local-yes.c
- 6. RRB/NVSHMEM/hostInitiated/conflict/005-nvshmem-conflict-getnbi-store-local-yes.cpp
- 7. newTestCases/implementationProblems/hybrid/mpi+shmem/002-no-rma-on-same-arr.cpp
- 8. newTestCases/implementationProblems/hybrid/mpi+shmem/001-yes-rma-on-same-arr.cpp
- 9. RRB/MPIRMA/conflict/remote/018-MPI-conflict-get-store-remote-yes.c
- $10.\ {
 m RRB/SHMEM/conflict/remote/018-shmem-conflict-get-store-remote-yes.c}$
- $11. \ {\tt RRB/NVSHMEM/hostInitiated/conflict/remote/018-nvshmem-conflict-get-store-remote-yes.c}$
- 12. RRB/MPIRMA/conflict/remote/023-MPI-conflict-put-store-remote-yes.c
- $13. \ {\tt RRB/SHMEM/conflict/remote/024-shmem-conflict-put-put-remote-yes.c}$
- $14. \ \ RRB/NVSHMEM/hostInitiated/conflict/remote/024-nvshmem-conflict-put-put-remote-yes.com and the state of the conflict of the conflict$
- 15. MBB/level1/RMA/Correct-lockunlock-get_bufwrite-001.c
- 16. MBB/level1/RMA/LocalConcurrency-lockallflush-accumulate_get-001.c
- $17. \ {\tt RRB/SHMEM/sync/remote/013-shmem-sync-lock-remote-no.c}$
- $18. \ {\tt RRB/SHMEM/sync/remote/014-shmem-sync-lock-remote-yes.c}$

- 19. RRB/NVSHMEM/hostInitiated/sync/currentlyNotSupportedByNVSHMEM/013-nvshmem-sync-lock-remote-no.c
- 20. RRB/NVSHMEM/hostInitiated/sync/currentlyNotSupportedByNVSHMEM/014-nvshmem-sync-lock-remote-yes.c
- 21. RRB/MPIRMA/sync/012-MPI-sync-pscw-local-no.c
- 22. RRB/MPIRMA/sync/011-MPI-sync-pscw-local-yes.c
- 23. RRB/SHMEM/sync/005-shmem-sync-waituntil-local-no.c
- 24. RRB/SHMEM/sync/006-shmem-sync-waituntil-local-yes.c
- $25. \ \ RRB/NVSHMEM/hostInitiated/sync/currentlyNotSupportedByNVSHMEM/016-nvshmem-sync-waituntil-remote-no.com of the contraction of the contrac$
- 26. RRB/NVSHMEM/hostInitiated/sync/currentlyNotSupportedByNVSHMEM/015-nvshmem-sync-waituntil-remote-yes.c
- 27. MBB/level1/RMA/Correct-fence-get_get-001.c
- 28. MBB/level1/RMA/LocalConcurrency-fence-get_get-001.c
- 29. RRB/SHMEM/sync/002-shmem-sync-barrierall-local-no.c
- 30. RRB/SHMEM/sync/001-shmem-sync-barrierall-local-yes.c
- 31. RRB/NVSHMEM/hostInitiated/sync/remote/008-nvshmem-sync-barrierall-remote-no.cpp
- $32.\ {\tt RRB/NVSHMEM/hostInitiated/sync/remote/007-nvshmem-sync-barrierall-remote-yes.cpp}$
- 33. RRB/MPIRMA/sync/010-MPI-sync-request-local-no.c
- 34. RRB/MPIRMA/sync/009-MPI-sync-request-local-yes.c
- 35. RRB/SHMEM/sync/remote/019-shmem-sync-ctx-remote-no.c
- 36. RRB/SHMEM/sync/remote/020-shmem-sync-ctx-remote-yes.c
- $37. \ \ RRB/NVSHMEM/hostInitiated/sync/currentlyNotSupportedByNVSHMEM/019-shmem-sync-ctx-remote-no.com and the synchronic contraction of the synchronic co$
- $38.\ {
 m RRB/NVSHMEM/hostInitiated/sync/currentlyNotSupportedByNVSHMEM/020-shmem-sync-ctx-remote-yes.c}$
- 39. MBB/level2/P2P/Correct-mpi_send_init-001.c
- 40. MBB/level2/P2P/LocalConcurrency-receive-mpi_recv_init-001.c
- 41. MBB/level2/COLL/Correct-mpi_iscatter-mpi_iscatter-001.c
- 42. MBB/level2/COLL/LocalConcurrency-mpi_ialltoall-001.c
- 43. MBB/level2/RMA/Correct-lockallflush-compare_and_swap_compare_and_swap-001.c
- 44. MBB/level2/RMA/LocalConcurrency-lockunlock-fetch_and_op_bufwrite-001.c
- $45. \ \ \, {\tt RRB/SHMEM/conflict/001-shmem-conflict-putnbi-load-local-no.c}$
- 46. RRB/SHMEM/conflict/002-shmem-conflict-putnbi-store-local-yes.c
- 47. RRB/NVSHMEM/gpuInitiated/conflict/009-nvshmem-conflict-put_signal_nbi-load-local-no.cu
- 48. RRB/NVSHMEM/gpuInitiated/conflict/008-nvshmem-conflict-put_signal_nbi-store-local-yes.cu
- $49. \ {\tt RRB/MPIRMA/atomic/remote/001-MPI-atomic-custom} \\ {\tt datatype-remote-no.c}$
- $50. \ {\tt RRB/MPIRMA/atomic/remote/002-MPI-atomic-customdatatype-remote-yes.c}$
- 51. RRB/MPIRMA/atomic/remote/009-MPI-atomic-int-int-remote-no.c
- 52. RRB/MPIRMA/atomic/remote/008-MPI-atomic-double-float-remote-yes.c
- 53. RRB/SHMEM/atomic/remote/005-shmem-atomic-int-int-sameorigin-remote-no.c
- $54. \ \ {\tt RRB/SHMEM/atomic/remote/006-shmem-atomic-double-long-remote-yes.c}$
- 55. RRB/NVSHMEM/gpuInitiated/atomic/remote/004-nvshmem-atomic-int-int-remote-no.cu
- 56. RRB/NVSHMEM/gpuInitiated/atomic/remote/006-nvshmem-atomic-double-long-remote-yes.cu
- 57. RRB/MPIRMA/hybrid/002-MPI-hybrid-master-local-no.c
- 58. RRB/MPIRMA/hybrid/001-MPI-hybrid-master-local-yes.c
- $59. \ \ \, {\tt RRB/SHMEM/hybrid/002-shmem-hybrid-for-ordered-local-no.c}$
- 60. RRB/SHMEM/hybrid/001-shmem-hybrid-for-local-yes.c
- 61. RRB/NVSHMEM/gpuInitiated/conflict/009-nvshmem-conflict-put_signal_nbi-load-local-no.cu
- $62. \ {\tt RRB/NVSHMEM/gpuInitiated/conflict/008-nvshmem-conflict-put_signal_nbi-store-local-yes.cu}$
- 63. RRB/MPIRMA/misc/001-MPI-misc-put-load-deep-nesting-local-no.c
- $64.\ {\tt RRB/MPIRMA/misc/002-MPI-misc-get-load-deep-nesting-local-yes.c}$
- $65. \ {\tt RRB/SHMEM/misc/001-shmem-misc-putnbi-load-deep-nesting-local-no.c}$
- $66. \ {\tt RRB/SHMEM/misc/002-shmem-misc-getnbi-load-deep-nesting-local-yes.c}$
- 67. RRB/NVSHMEM/gpuInitiated/misc/remote/009-nvshmem-misc-get-load-deep-nesting-remote-no.cu
- $68. \ \ \, RRB/NVSHMEM/gpuInitiated/misc/remote/010-nvshmem-misc-get-store-deep-nesting-remote-yes.cu$
- $69. \ \ {\tt newTestCases/implementationProblems/mpi/002-no-recursive.c}$
- $70. \verb| newTestCases/implementationProblems/mpi/001-yes-recursive.c|$
- 71. RRB/MPIRMA/misc/remote/011-MPI-misc-get-load-funcpointer-remote-no.c

- 72. RRB/MPIRMA/misc/remote/012-MPI-misc-get-store-funcpointer-remote-yes.
- 73. RRB/SHMEM/misc/remote/011-shmem-misc-get-load-funcpointer-remote-no.c
- 74. RRB/SHMEM/misc/remote/012-shmem-misc-get-store-funcpointer-remote-yes.c
- 75. RRB/NVSHMEM/gpuInitiated/misc/remote/011-nvshmem-misc-get-load-funcpointer-remote-no.cu
- 76. RRB/NVSHMEM/gpuInitiated/misc/remote/012-nvshmem-misc-get-store-funcpointer-remote-yes.cu
- 77. RRB/MPIRMA/misc/003-MPI-misc-put-load-aliasing-local-no.c
- 78. RRB/MPIRMA/misc/004-MPI-misc-get-load-aliasing-local-yes.c
- 79. RRB/SHMEM/misc/003-shmem-misc-putnbi-load-aliasing-local-no.c
- 80. RRB/SHMEM/misc/004-shmem-misc-getnbi-load-aliasing-local-yes.c
- $81.\ {
 m RRB/NVSHMEM/hostInitiated/misc/003-nvshmem-misc-putnbi-load-retval-local-no.cpp}$
- 82. RRB/NVSHMEM/hostInitiated/misc/006-nvshmem-misc-getnbi-load-aliasing-local-yes.cpp
- 83. RRB/NVSHMEM/hybridInitiated/sync/002-nvshmem-sync-barrierall-local-no.cu
- 84. newTestCases/gpuSpecificNVSHMEM/barrierNotSyncGPUStuff.cpp
- 85. newTestCases/implementationProblems/mpi/008-no-winNotTrackable.c
- 86. newTestCases/implementationProblems/mpi/007-yes-winNotTrackable.c
- 87. newTestCases/implementationProblems/mpi/006-no-flush-multiple-wins.cpp
- 88. newTestCases/implementationProblems/mpi/005-yes-flush-multiple-wins.cpp
- 89. RRB/NVSHMEM/hybridInitiated/sync/remote/008-nvshmem-sync-barrierall-remote-no.cu
- 90. RRB/NVSHMEM/hybridInitiated/sync/remote/007-nvshmem-sync-barrierall-remote-yes.cu
- 91. newTestCases/staticAnalysisWeakness/spmdIRProblems/mpi/001-no-pointer-in-same-arr.cpp
- $92. \ \ \texttt{newTestCases/staticAnalysisWeakness/spmdIRProblems/shmem/001-no-pointer-in-same-arr.cpp}$
- 93. proxyApps/PRK/MPIRMA/Stencil/stencil.c
- 94. proxyApps/PRK/SHMEM/Synch_p2p/p2p.c