

20

 $W^- D^+$ OS-SS $\sqrt{s} = 13 \text{ TeV}$

Cross section [pb]

15

10

5

1.10

1.05

1.00

0.95

 R_A

8

12

20

40

80

150

 $P_T(D) [\text{GeV}]$

11.5

10.5

9.5

8.5

7.5

6.5

5.5

4.5

3.5

2.5

1.5

0.5

-0.5

-1.5

-2.5

-3.5

-4.5

-5.5

-6.5

-7.5

-8.5

-9.5

-10.5

-11.5

-12.5

-13.5

-14.5

-15.5

-16.5

-17.5

-18.5

-19.5

-20.5

-21.5

-22.5

-23.5

-24.5

-25.5

-26.5

-27.5

-28.5

-29.5

-30.5

-31.5

-32.5

-33.5

-34.5

-35.5

-36.5

-37.5

-38.5

-39.5

-40.5

-41.5

-42.5

-43.5

-44.5

-45.5

-46.5

-47.5

-48.5

-49.5

-50.5

-51.5

-52.5

-53.5

-54.5

-55.5

-56.5

-57.5

-58.5

-59.5

-60.5

-61.5

-62.5

-63.5

-64.5

-65.5

-66.5

-67.5

-68.5

-69.5

-70.5

-71.5

-72.5

-73.5

-74.5

-75.5

-76.5

-77.5

-78.5

-79.5

-80.5

-81.5

-82.5

-83.5

-84.5

-85.5

-86.5

-87.5

-88.5

-89.5

-90.5

-91.5

-92.5

-93.5

-94.5

-95.5

-96.5

-97.5

-98.5

-99.5

-100.5

-101.5

-102.5

-103.5

-104.5

-105.5

-106.5

-107.5

-108.5

-109.5

-110.5

-111.5

-112.5

-113.5

-114.5

-115.5

-116.5

-117.5

-118.5

-119.5

-120.5

-121.5

-122.5

-123.5

-124.5

-125.5

-126.5

-127.5

-128.5

-129.5

-130.5

-131.5

-132.5

-133.5

-134.5

-135.5

-136.5

-137.5

-138.5

-139.5

-140.5

-141.5

-142.5

-143.5

-144.5

-145.5

-146.5

-147.5

-148.5

-149.5

-150.5

-151.5

-152.5

-153.5

-154.5

-155.5

-156.5

-157.5

-158.5

-159.5

-160.5

-161.5

-162.5

-163.5

-164.5

-165.5

-166.5

-167.5

-168.5

-169.5

-170.5

-171.5

-172.5

-173.5

-174.5

-175.5

-176.5

-177.5

-178.5

-179.5

-180.5

-181.5

-182.5

-183.5

-184.5

-185.5

-186.5

-187.5

-188.5

-189.5

-190.5

-191.5

-192.5

-193.5

-194.5

-195.5

-196.5

-197.5

-198.5

-199.5

-200.5

-201.5

-202.5

-203.5

-204.5

-205.5

-206.5

-207.5

-208.5

-209.5

-210.5

-211.5

-212.5

-213.5

-214.5

-215.5

-216.5

-217.5

-218.5

-219.5

-220.5

-221.5

-222.5

-223.5

-224.5

-225.5

-226.5

-227.5

-228.5

-229.5

-230.5

-231.5

-232.5

-233.5

-234.5

-235.5

-236.5

-237.5

-238.5

-239.5

-240.5

-241.5

-242.5

-243.5

-244.5

-245.5

-246.5

-247.5

-248.5

-249.5

-250.5

-251.5

-252.5

-253.5

-254.5

-255.5

-256.5

-257.5

-258.5

-259.5

-260.5

-261.5

-262.5

-263.5

-264.5

-265.5

-266.5

-267.5

-268.5

-269.5

-270.5

-271.5

-272.5

-273.5

-274.5

-275.5

-276.5

-277.5

-278.5

-279.5

-280.5

-281.5

-282.5

-283.5

-284.5

-285.5

-286.5

-287.5

-288.5

-289.5

-290.5

-291.5

-292.5

-293.5

-294.5

-295.5

-296.5

-297.5

-298.5

-299.5

-300.5

-301.5