A third topology crossword puzzle   Created by Jean Goubault-Larrecq

ACROSS

1. Clean again
6. Ten to the fifteen
9. Mother of the Believers, to Muslims
14. From Charlotte to Raleigh, e.g.
15. November birthstone
17. Maps morphisms to morphisms (Sec. 4.12.1)
19. Sup of distances between pairs of points (Ex. 7.3.6)
21. Pooh's creator
22. Lauderdale, e.g.: abbr.
23. Consume
24. Sorgenfrey, author of famous counterexample (Ex. 4.1.34 and others)
26. Half-size
28. Bounce
29. Ornate
30. Vegas, e.g.
31. First woman
33. One in Amsterdam
34. In South East England, or in North East Ohio
35. A.k.a. term (Sec. 9.7)
36. Least upper bound (Sec. 2.3.2)
38. Sorgenfrey's is not normal (Ex. 6.3.33)
39. Builds devices from parts bought from others
40. Mucho
43. Woodwind instrument
44. Dull
46. ___ one, purl one
47. Useful result
50. ___-Louis Baire
51. Bud holder
52. Bordeaux or Burgundy, e.g.
53. ___ if!
54. Pair of mutually inverse morphisms (Sec. 4.12)
56. Word, up to permutation (Ex. 9.7.35)
59. Part of ball (Def. 6.1.3.)
61. Our planet
62. Unprocessed
64. Families whose union contain the whole set (Def. 4.4.1)
65. Sharpness
66. Amp plug-ins
67. Monkey
68. Whose opposite is lsc (Ex. 4.3.11)
70. Reduction
71. Paying guest
74. Bing Crosby hometown
77. Northeastern state, in brief
78. Papal sending
80. Bud holder
82. Sunlight
83. Consume
84. Banner

DOWN

1. Cash in
2. Early computer
3. "You don't need a ___ to know which way the wind blows", Bob Dylan quote
4. Basis of a function space (Lem. 5.7.10)
5. Sizzling
6. Temporary release
7. Ad catchphrase
8. Passionate
9. ___ Arbor, MI
10. On the rocks
11. 14 pounds, for short
12. Author of theorems with Mislove (Thm 8.3.2) and Lawson (Thm 8.3.21)
13. Professional entertainer
16. Patch-continuous and monotonic, under stable compactness (Prop. 9.4.5)
18. Prefix with net (Def. 4.7.32) or metric (Ex. 6.1.20), e.g.
20. "Eppur si ___", Galileo utterance
21. Cat call
25. One inventor of various notions called after Yoneda (e.g., Sec. 7.4.3)
27. Home of Zeno
32. Slippery fish
34. Author of a fixed point theorem (Prop. 4.3.6)
35. Needed to define the prefix topology (Ex. 9.7.36)
37. Winner's take
38. Countably-based and completely metrizable (Sec. 7.7)
39. Spanish work or Polish river
41. Vigilant
42. Ricochet
45. ___'s Theorem: when continuity implies uniform continuity (Lem. 6.2.7)
48. With a distance (Sec. 3.1)
49. Opportunity to do better this time
52. Coauthor of a fixed point theorem (Thm. 2.3.1)
55. Like a Choquet game? (Sec. 7.6.1)
57. Escardo-___-Simpson Lemma: Map-C is Cartesian-closed (Thm. 5.6.4)
58. Result of practical use (e.g., 4.1.11 or 4.4.6)
60. ___-continuous: required in Arzela-Ascoli-Kelley theorems (5.4.38, 5.4.40)
63. Sharpness
64. Prefix with pillar
68. Fairy tale's second word
69. Shortly
72. Rijndael
73. Bill
74. Lady's man
75. Whiz
76. Long time
79. You, in Paris
81. Second biggest to NYC in the US

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