Handbook of Product Graphs, Second Edition

Errors, Misprints and Notes

August 20, 2011

Errors, misprints, missing references

- Page 246, Proposition 20.8: The proposition holds for τ^*, but not for τ. (Imrich and Kupka, manuscript August 2011.)
- Page 258, line 5: replace "Slutzky" with "Slutzki".
- Page 357, last line: the following paper should be added there: J. Žerovnik, Perfect codes in direct products of cycles—a complete characterization. Adv. in Appl. Math. 41 (2008) 197–205.
- Page 385, line 17: replace twice "$C_m \times C_n$" with "$C_m \times P_n$".
- Page 416, line -12: should read: $S(\bigtimes_{\iota\in I} G_\iota) = \square_{\iota\in I} S(G_\iota)$,
- Page 437, line -12: replace "The relationship between the Laplacian of a product and that of the factors is the same as for the adjacency matrix." by "The relationship between the Laplacian spectrum of a product and that of the factors is very difficult except for the Cartesian product, unless the graphs are regular."

Notes

- Chapter 2, Independence number

  Spacapan (manuscript, January 2011) extended the No-Homomorphism Lemma 2.13 and Theorem 27.13 on the independence number of direct powers of vertex transitive graphs to assertions about the k-independence number. Notice that the k-independence number $\alpha_k(G)$ of a graph G is the size of the largest k-colorable induced subgraph of G.

  Both the No-Homomorphisms Lemma and Theorem 27.13 hold if $\alpha(G)$ is replaced by $\alpha_k(G)$.

- Chapter 31, Free product

  Exotic as it may seem at a first glance, the free product $G * H$ is an isometric subgraph of the weak Cartesian product of infinitely many copies of G and H. Thus it is in a similar relation to the Cartesian product as partial cubes are to hypercubes. (Imrich and Jędrzejaszek, manuscript August 2011)