

**Abstract:** We develop a general model of edge spaces in order to generalize, unify, and simplify previous work on cycle spaces of infinite graphs. We give simple topological criteria to show that the fundamental cycles of a (generalization of a) spanning tree generate the fundamental cycles in a connected, compact, weakly Hausdorff edge space. Furthermore, in such a space, the orthogonal complement of the bond space is the cycle space. These results generalize the analogous results from Diestel and Kühn (Combinatorica **24** (2004), 68–89 and Europ. J. Combin. **25** (2004), 835–862) for infinite locally finite graphs and for their identification space  $\tilde{G}$  and also ties together those results with a different notion of cycle space introduced by Bonnington and Richter (J. Graph Theory **44** (2003), 132–147).