

Garside structure and Dehornoy ordering of braid groups for topologists, Part I and II

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We explain the most important algebraic structures the braid groups, the Garside structure, a device for producing a nice normal form, and the Dehornoy ordering, a standard but highly nontrivial left ordering. In this mini-course talk, instead of giving algebraic and strict treatments, we give an informal and intuitive introduction emphasizing their background ideas and their topological prospect. We will present several applications to illustrate how these structure will be used to study topology.