▶ VALENTIN GORANKO AND RUAAN KELLERMAN, *Classes and theories of trees associated with a class of linear orderings.*

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Given a set of linear orderings $\mathcal{C}$, several classes of trees associated with $\mathcal{C}$ arise naturally, defined in terms of how the paths of those trees are related to the orderings from $\mathcal{C}$. Each of these classes determines a first-order theory, thus yielding several first-order theories of trees associated with $\mathcal{C}$.

While much is known about certain specific classes and first-order theories of trees (see e.g. [4], [2], [1], [3]), no general study has been done so far of the classes of trees and their first-order theories arising from any given set of linear orderings. In the present study we analyze and completely determine the relationships between all of these classes of trees and between their corresponding first-order theories.

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[2] K. DOETS, **Completeness and Definability: Applications of the Ehrenfeucht Game in Second-Order and Intensional Logic**, Ph.D. thesis, University of Amsterdam, 1987.

[3] V. GORANKO, *Trees and Finite Branching*, **Proceedings of the** 2nd **Panhellenic Logic Symposium** (Delphi), (Phokion Kolaitis and George Koletsos, editors), 1999, pp. 91–101.

[4] J. SCHMERL, *On $\aleph_0$-categoricity and the theory of trees*, **Fundamenta Mathematicae**, vol. 94 (1977), no. 2, pp. 121–128.