

# XML Research for Formal Language Theorists

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**Abstract.** Formal Language Theory plays a dominant role in XML research. The design of the predominant XML schema languages is based on context-free grammars and tree automata, and widely used navigation and transformation languages such as XPath and XSLT are closely tied to regular expressions and tree transducers. The investigation of these schema and query languages can therefore make use of a large corpus of results in Formal Language Theory.

Conversely, XML research is also a motivation and a source of inspiration for problems in Formal Language Theory. Static analysis questions in XML research, for instance, motivate the deeper study of problems such as membership testing, containment, equivalence, and minimization for various forms of regular expressions and finite automata.

I will give an overview of this synergy between XML research and Formal Language Theory.