

Fraglets: Chemical Programming with a Packet Prefix Language

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In a computer network, the data packet header “instructs” the receiving router or end node what it has to do with the packet. We generalize this concept and construct a prefix programming language where each packet becomes a computation fragment (fraglet) for distributed computations and protocols. In this talk we will introduce this programming model, show its links to string rewriting systems as well as the chemical programming metaphor, and discuss some key design decisions of the Fraglets language. The dynamic aspect of chemical programs will be covered in a second talk.