



UNIVERSITÀ  
DEGLI STUDI  
DI PALERMO



Seminari  
del  
Dipartimento  
di  
Matematica  
e  
Informatica

Annuncio di Seminario

## 2-Connectivity Problems in Directed Graphs

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Aula 7, Via Archirafi 34, 90123 Palermo

We survey some recent results on 2-edge and 2-vertex connectivity problems in directed graphs. Despite being complete analogs of the corresponding notions on undirected graphs, in digraphs 2-vertex and 2-edge connectivity have a much richer and more complicated structure. It is thus not surprising that 2-connectivity problems on directed graphs appear to be more difficult than on undirected graphs. For undirected graphs it has been known for over 40 years how to compute all bridges, articulation points, 2-edge- and 2-vertex-connected components in linear time, by simply using depth first search. In the case of digraphs, however, the very same problems have been much more challenging and have been tackled only recently.

Based on joint work with Loukas Georgiadis and Nikos Parotsidis

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*Tutti gli interessati, in particolare gli studenti, sono invitati a partecipare*