Dipartimento di
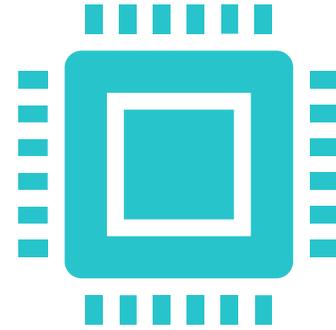**Ingegneria Elettrica Elettronica**
e **Informatica**

Research activity overview

MARCO GRASSIA
FIRST YEAR PH.D STUDENT

TUTOR: **GIUSEPPE MANGIONI**

Network Science and Applications

Machine Learning in Network Science

Research interests

Network Science and Applications

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Network dismantling

Improvement of network robustness

In-attachment problem

Efficient way to improve trust score

Econophysics

International relations, flow of money, goods and services, etc

Machine Learning to tackle NP-Hard problems on Networks

Maximum Clique Enumeration

In-attachment

Network Dismantling

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Publications

Learning (sub-)optimal percolation with network dismantling
M Grassia, G Mangioni, M De Domenico, under review

Network robustness improvement via long-range links
V Carchiolo, M Grassia, A Longheu, M Malgeri, G Mangioni, under review

A PageRank Inspired Approach to Measure Network Cohesiveness
V Carchiolo, M Grassia, A Longheu, M Malgeri, G Mangioni, IDCS 2019

Strategies comparison in link building problem
V Carchiolo, M Grassia, A Longheu, M Malgeri, G Mangioni, IDC 2019

Learning Multi-Stage Sparsification for Maximum Clique Enumeration
M Grassia, J Lauri, S Dutta and D Ajwani, IJCAI-DSO 2019

Exploiting Long Distance Connections to Strengthen Network Robustness
V Carchiolo, M Grassia, A Longheu, M Malgeri, G Mangioni, IDCS 2018

Climbing Ranking Position via Long-Distance Backlinks
V Carchiolo, M Grassia, A Longheu, M Malgeri, G Mangioni, IDCS 2018

Long Distance In-Links for Ranking Enhancement
V Carchiolo, M Grassia, A Longheu, M Malgeri, G Mangioni, IDC 2018

Conferences & Schools

Conferences

ComplexNetworks 2018

• Oral presentation of: *Long distance connections for ranking and robustness enhancement in networks*

CompleNet 2018

CCS/Italy (Italian Regional Conference on Complex Systems) 2019

• Oral presentation of: *Learning (sub-)optimal percolation with network dismantling*

Schools

International School on Informatics and Dynamics in Complex Networks, 2018

Complex networks: theory, methods, and applications, 2019

International School of DataScience and IoT (ISDIT), 2019

Thank you!