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## **Efficient analysis of networks with cycles**

### **Abstract**

Project Scheduling is quite a high demand area of Operations Research, with a broad range of possible applications. Probably, this can approve (and explain) the very high publication activity that could be observed in the area: dozens of books, thousands of papers. Meanwhile, studying many of those books leaves a strange impression. On the one hand, a continued progress is being declared (in each monograph, if a network is under investigation then it is for sure “generalized”). But on the other hand, at a detailed consideration it becomes clear that what is introduced as “contemporary achievements” are, in fact, long-known results, published 20 or 40 years before. (Just the names of the inventors changed.) At that, more efficient methods elaborated in discrete mathematics and proved to be successfully applicable to Project Scheduling problems remain unknown for most authors of those books. The talk to be presented is an outcome of my frugal bibliography investigation in the area of Project Scheduling. It pursues several targets, as to: (a) reconstruct the real (non-straightforward) history of Project Scheduling development; (b) remind the listeners some, maybe not brand-new (and sometimes even old), but still worthy results, undeserving to be neglected (as well as their authors); and lastly, (c) introduce to listeners some “fresh” results in the area.