Seminar on Combinatorial Computing
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The windows scheduling problem

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Abstract

An important goal of today communication networks is to provide media and information on demand. The unicast solution (pull systems) that dedicates a communication channel per request is implausible even with the ever growing available network bandwidth. Thus, multicasting popular media and information (push systems) to groups of clients seems to be the ultimate solution to the ever growing demand for media and information. Two prominent applications that would benefit from push systems are:

(i) Media-on-Demand in which clients wish to receive a popular media (e.g., a movie or a news clip) and

(ii) Air-Caching in which clients retrieve popular information (e.g, traffic and weather reports, stock quotes) from a satellite that broadcasts such information periodically.

We describe the Windows Scheduling Problem that could be applied to both applications and show asymptotic and practical solutions to this problem.

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or visit our website: http://math.gc.cuny.edu/Seminars/Combinatorics.html