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Nota di contenuto	Business and Scientific Workflows: A Web Service-Oriented Approach; Contents; Foreword; Preface; 1. Introduction; 1.1 Background and Motivations; 1.1.1 Web Service and Service-Oriented Architecture; 1.1.2 Workflow Technology; 1.2 Overview of Standards; 1.2.1 Web Service-Related Standards; 1.2.2 Workflow-Related Standards; 1.3 Workflow Design: State of the Art; 1.3.1 Automatic Service Composition; 1.3.2 Mediation-Aided Service Composition; 1.3.3 Verification of Service-Based Workflows; 1.3.4 Decentralized Execution of Workflows; 1.3.5 Scientific Workflow Systems; 1.4 Contributions 2. Petri Net Formalism2.1 Basic Petri Nets; 2.2 Workflow Nets; 2.3 Colored Petri Nets; 3. Data-Driven Service Composition; 3.1 Problem Statement; 3.1.1 Domains and Data Relations; 3.1.2 Problem Formulation; 3.2 Data-Driven Composition Rules; 3.2.1 Sequential Composition Rule; 3.2.2 Parallel Composition Rule; 3.2.3 Choice Composition Rule; 3.3 Data-Driven Service Composition; 3.3.1 Basic Definitions; 3.3.2 Derive AWSP from Service Net; 3.4 Effectiveness and Efficiency of the Data-Driven Approach; 3.4.1 Solution Effectiveness; 3.4.2 Complexity Analysis; 3.5 Case Study; 3.6 Discussion

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## Sommario/riassunto

Focuses on how to use web service computing and service-based workflow technologies to develop timely, effective workflows for both business and scientific fields Utilizing web computing and Service-Oriented Architecture (SOA), Business and Scientific Workflows: A Web Service-Oriented Approach focuses on how to design, analyze, and deploy web service-based workflows for both business and scientific applications in many areas of healthcare and biomedicine. It also discusses and presents the recent research and development results. This informative reference features app

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