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Titolo	Proceedings of the Twenty-Fourth Annual ACM-SIAM Symposium on Discrete Algorithms / / Khanna Sanjeev, editor
Pubbl/distr/stampa	New York [New York] : , : Association for Computing Machinery Philadelphia, Pennsylvania : , : Society for Industrial and Applied Mathematics (SIAM, 3600 Market Street, Floor 6, Philadelphia, PA 19104), , [2013]
ISBN	1-61197-310-4
Descrizione fisica	PDFs (xix, 1915 pages) : illustrations
Disciplina	005.1
Soggetti	Computer algorithms
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	This symposium focuses on research topics related to efficient algorithms and data structures for discrete problems. In addition to the design of such methods and structures, the scope also includes their use, performance analysis, and the mathematical problems related to their development or limitations. Performance analyses may be analytical or experimental and may address worst-case or expected-case performance. Studies can be theoretical or based on data sets that have arisen in practice and may address methodological issues involved in performance analysis.

2. Record Nr. UNINA9910969864103321

Titolo	Modeling mobile-source emissions / / Committee to Review EPA's Mobile Source Emissions Factor (Mobile) Model, Board on Environmental Studies and Toxicology, Commission on Geosciences, Environment, and Resources, Transportation Research Board, National Research Council
Pubbl/distr/stampa	Washington, D.C., : National Academy Press, c2000
ISBN	9786610185436 9780309171908 0309171903 9781280185434 1280185430 9780309569613 0309569613 9780585346717 0585346712
Edizione	[1st ed.]
Descrizione fisica	1 online resource (257 p.)
Collana	The compass series
Disciplina	363.738/7
Soggetti	Motor vehicles - Motors - Exhaust gas - Environmental aspects - United States - Mathematical models - Evaluation Air quality management - United States - Mathematical models - Evaluation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 210-225).
Nota di contenuto	""MODELING MOBILE-SOURCE EMISSIONS""; ""Copyright""; ""Preface""; ""Contents""; ""Executive Summary""; ""MOBILE-SOURCE EMISSIONS MODELING RECOMMENDATIONS""; ""Development of a Toolkit of Models""; ""Finding""; ""Recommendation""; ""Model Evaluation""; ""Finding""; ""Recommendation""; ""Sensitivity and Uncertainty Assessment""; ""Finding""; ""Recommendation""; ""Long-Term Planning""; ""Finding""; ""Recommendation""; ""Improving Characterization of Real-World Vehicle Emissions""; ""Finding""; ""Recommendation""; ""RECOMMENDATIONS FOR IMPROVEMENTS TO MOBILE""

""Emissions from Heavy-Duty Diesel Vehicles""""Finding""; ""Recommendation""; ""Particulate Emissions""; ""Finding""; ""Recommendation""; ""High-Emitting Vehicles""; ""Finding""; ""Recommendation""; ""Frequency of Model Updates""; ""Finding""; ""Recommendation""; ""Mobile-Source Toxic Emissions""; ""Finding""; ""Recommendation""; ""OTHER RECOMMENDATIONS""; ""Off-Road Emissions""; ""Finding""; ""Recommendation""; ""TAKING THE NEXT STEPS""; ""1 Overview of Mobile-Source Emissions ""; ""AIR-QUALITY PROTECTION""; ""Pollutants of Interest""; ""Mobile-Source Contributions""
""Human Health Concerns""""Environmental Concerns""; ""ESTIMATING EMISSIONS FROM MOBILE SOURCES""; ""Importance of Source Identification and Quantification""; ""On-Road Vehicle Emissions Categories""; ""Light-Duty Vehicles""; ""Heavy-Duty Vehicles""; ""Evaporative Emissions""; ""Off-Road Emissions Categories""; ""Mobile-Source Emissions Using MOBILE and Related Models""; ""LEGISLATIVE AND REGULATORY INITIATIVES""; ""Legislative Requirements and Compliance Attainment Plans""; ""Legislative Requirementsa€? Conformity Plans""; ""Regulatory Initiatives""
""COMMITTEE'S CHARGE AND HOW IT ORIGINATED""""REPORT STRUCTURE""; ""2 Current and Possible Future Uses of MOBILE in Air-Quality Management ""; ""FUTURE MOBILE-SOURCE EMISSIONS-MODELING ISSUES""; ""MODELING AIR QUALITY: AN INTERDISCIPLINARY ENDEAVOR""; ""Travel-Demand Modeling""; ""Multidimensional Synergistic Impacts from Adjustments to Travel Activity Results""; ""Emissions Modeling""; ""Vehicle Registration""; ""Vehicle Miles of VMT Travel Mix""; ""Average Speed""; ""Temperature""; ""Air-Quality Modeling""; ""Users of Modeling Components""; ""Level of Analysis and Model Uses and Users""
""Fidelity, Accuracy, and Precision of Each Component""""USES OF MOBILE IN POLICY DECISION-MAKING""; ""National and Regional Regulatory Strategies""; ""Primary Users and Purpose""; ""Issues and Limitations""; ""Policy Implications and Future Direction""; ""Evaluation of Control Strategies, Emissions Inventory, and Rate of Progress""; ""Primary Users and Purpose""; ""Issues and Limitations""; ""Policy Implications and Future Directions""; ""SIP Demonstration of Attainment""; ""Primary Users and Purpose""; ""Issues and Limitations""; ""Policy Implications and Future Directions""
""Transportation Conformity and Evaluation of Transportation Impacts in a Nonattainment Area""

Sommario/riassunto

The Mobile Source Emissions Factor (MOBILE) model is a computer model developed by the U.S. Environmental Protection Agency (EPA) for estimating emissions from on-road motor vehicles. MOBILE is used in air-quality planning and regulation for estimating emissions of carbon monoxide (CO), volatile organic compounds (VOCs), and nitrogen oxides (NOx) and for predicting the effects of emissions-reduction programs.1 Because of its important role in air-quality management, the accuracy of MOBILE is critical. Possible consequences of inaccurately characterizing motor-vehicle emissions include the implementation of insufficient controls that endanger the environment and public health or the implementation of ineffective policies that impose excessive control costs. Billions of dollars per year in transportation funding are linked to air-quality attainment plans, which rely on estimates of mobile-source emissions. Transportation infrastructure decisions are also affected by emissions estimates from MOBILE. In response to a request from Congress, the National Research Council established the Committee to Review EPA's Mobile Source Emissions Factor (MOBILE) Model in October 1998. The committee was

charged to evaluate MOBILE and to develop recommendations for improving the model.