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Program Transformation -- Program Analysis -- When Size Does Matter -- Symbolic Profiling for Multi-paradigm Declarative Languages -- Program Development -- Correct Object-Oriented Systems in Computational Logic -- A Framework for Developing Embeddable Customized Logics -- Computing Environment-Aware Agent Behaviours with Logic Program Updates -- Program Synthesis -- Extracting General Recursive Program Schemes in Nuprl's Type Theory -- Extracting Exact Time Bounds from Logical Proofs.

Sommario/riassunto

ThisvolumecontainsthepapersfromLOPSTR2001,the11thInternational WorkshoponLogic-basedProgramSynthesisandTransformation. Topicsof- teresttoLOPSTRcoverallaspectsoflogic-basedprogramdevelopmentand,in particular, speci'cation, synthesis, veri'cation, transformation, specialization, analysis,optimization, composition,reuse,component-basedsoftwaredevel- ment, andsoftwarearchitectures. LOPSTR 2001 took place in the Coral Beach Hotel in Paphos (Cyprus) fromNovember28-30,2001. PastLOPSTRworkshopswereheldinManchester, UK(1991,1992,1998), Louvain-la-Neuve,Belgium(1993),Pisa,Italy(1994), Arnhem, TheNetherlands(1995),Stockholm,Sweden(1996),Leuven,Belgium (1997),Venice,Italy(1999),andLondon,UK(2000). LOPSTR2001wasco-locatedwiththe17thInternationalConferenceonLo- 1 gicProgramming (ICLP2001) andthe7thInternationalConferenceonPrinci- 2 plesandPracticeofConstraintProgramming(CP2001) . TheLOPSTRc-munitypro'tedalotfromthescienti'cdiscussions,thelecturesoftheinvited speakers,andthevarioussessionsofICLPandCP. I would like to express my gratitude to all the authors of the submitted papersandalltheattendeesfortheircommitmentandcooperation. Amongthe submittedpapers, theProgramCommitteeselected13papersforpresentation. Aftertheworkshop, theauthorswereaskedtosubmitimprovedversionsoftheir paperswhichwerethenreviewedbytheProgramCommittee. The'nalversions havebeencollectedinthisvolume, whichalsoincludesthepaperbyourinvited speaker,NatarajanShankar (StanfordResearchInstitute,MenloPark,USA), onthegenerationofe'cientprogramsfromlogic. MywarmestthanksalsogotoallthemembersoftheProgramCommittee andtheadditionalreviewersfortheirdiligentworkandinvaluablehelp. Iwould liketothankFabioFioravanti(IASI-CNRofRome,Italy), MaurizioProietti (IASI-CNRofRome,Italy),andAntonisKakas (UniversityofCyprus,Cyprus), whoworkedwithmewithgreatenthusiasmanddedicationasmembersofthe OrganizingCommittee. Thepre-proceedingsofLOPSTR2001wereprintedbytheIASIInstituteof theNationalResearchCouncilofRome,Italy,andtheDepartmentofComputer ScienceoftheUniversityofCyprusinNicosia. IalsothankSpringerforaccepting topublishthese'nalproceedingsintheLNCSseries. TheLOPSTR2001home pageis:http://www. iasi. rm. cnr. it/~adp/lopstr01cfp. html. April2002 AlbertoPettorossi 1 Codognet,Ph. ,editor,LogicProgramming--ICLP2001,LectureNotesinComputer Science 2237,Springer-Verlag,2001. 2 Walsh,T. ,editor,PrinciplesandPracticeofConstraintProgramming--CP2001, LectureNotesinComputerScience 2239,Springer-Verlag,2001. ProgramChair AlbertoPettorossi Universit`adegliStudidiRoma"TorVergata",Italy ProgramCommittee DavidBasin Albert-Ludwigs-Universit¨atFreiburg,Germany AntonioBrogi Universit`adiPisa,Italy MauriceBruynooghe KatholiekeUniversiteitLeuven,Belgium NicolettaCocco

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