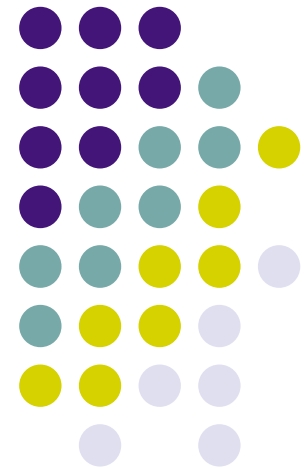


# Semantics for Agreement Technologies

WG1 meeting @ EUMAS 2009, Ayia Napa, Cyprus

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*Axel Polleres, WG1 leader*





# WG1: Semantics

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- *novel ways of semantic alignment of ontologies*
- *take into account the current interaction state of agents*
- *ontologies+non-monotonic rules for meaning-preserving alignment and merging of theories*

Semantics for  
Agreement  
Technologies

*but also...*

Agreement  
Technologies for  
Semantic Web



## WG1: Semantics – Main objectives

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- Integration of Ontologies and nonmonotonic Rules
  - theoretical backbone for processing ontologies and alignments
- Querying over distributed ontologies involving mapping rules and alignments:
  - Ontologies + mappings published online involve new challenges wrt. scale, contextualization, distribution
- Alignment with existing (Semantic) Web standards:
  - *RDF, RIF, OWL, SPARQL, SA-WSDL*
  - *Enrich these with methods and standard proposals to enforce policies and trust online*



## WG1 – Semantics: Activities

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- Concrete work on theoretical underpinnings ongoing:
  - KR community, Rules (e.g. RR conference), DL
- Standards contributions in W3C:
  - RIF, OWL2, SPARQL1.1
  
- Networking with the Semantic Web community:
  - Liaison meeting co-located with WWW2009
  - Next COST meeting @ ESWC2010?



## WG1 – Semantics: Input welcome!

- ❑ Open for all contributions to the whole **lifecycle** of resolving semantic heterogeneities:
  - ❑ Publishing ontologies (languages, semantics, creating ontologies)
  - ❑ Finding alignments (semi-automatically)
  - ❑ Publishing alignments (languages, semantics)
  - ❑ processing/executing reasoning over ontologies & alignments (querying, scalability, distribution negotiation, trust → bridges to other WGs!!)
    - ❑ *authority, trust, policies*
    - ❑ *negotiation, argumentation*
    - ...



## 2 WG1 workshops

- ❑ **SPOT2009 - Trust and Privacy on the Social and Semantic Web @ESWC2009:**

- ❑ Keynote Piero Bonatti
- ❑ co-organised by WG members
- ❑ sponsored by COST

- ❑ **COIN@MALLOW: Sep 2009**

- ❑ not really sponsored by COST, but high personal overlap (Julian, Pablo, Sascha)
- ❑ idea network with Social Web community
- ❑ partially successful, more needed!



## 3 STSMs so far

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- ❑ STSM: George Vouros: June 2009 Topics:
  - ❑ Ontology Alignments, Service Discovery, Object consolidation/Instance matching (George, Antoine's talks later on)
- ❑ STSM: Piero Bonatti July-August 2009 Topics:
  - ❑ Authoritative Reasoning
  - ❑ Reasoning with Rules and Ontologies
  - ❑ Reasoning with Preferences
  - ❑ Reasoning with Policies
- ❑ STSM (WG1, WG5): Philipp Kaerger July-August 2009
  - ❑ Reasoning with Preferences
  - ❑ Reasoning with Policies



## Open issues

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- ❑ **More coordination/networking needed!**
  - ❑ **web site**
  - ❑ **mailinglist**
  - ❑ **activities (not only STSMs to IE)**
  
- ❑ **More networking with other WGs needed**
  
- ❑ **More networking outreach to other communities (SW community, social Web community) needed**
  
- ❑ **Hope to initiate discussion about these issues here!!!**



# Program Today

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- Reports/next steps from STSMs:
  - Authoritative Reasoning over Web Data:
    - Axel Polleres (recap): authoritative reasoning on Web data
    - Piero Bonatti: Authoritative Reasoning
  - Object Consolidation/Instance Matching
    - George Vouros: In stance Matching
    - Antoine Zimmermann: Object Consolidation
- Other progress reports, new members:
  - Alberto Fernandez: *Service discovery with semantic alignment*
  - Michail Salampasis: *An application framework based on semantic web technologies for building web accessibility applications*
  - Adina Magda Florea: *Self-introduction*

<http://www.agreement-technologies.eu/wg1/workshop/483>