

The CellML Metadata 1.0 Specification

Working Draft - 16 January 2002

6 Appendix

6.1 Cmeta Terms RDF Schema Draft

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<?xml version="1.0" encoding="iso-8859-1"?>
<!--This Version:
Title: RDF Schema Declaration Draft for CellML Metadata terms.

Creator: Autumn A. Cuellar
      Bioengineering Research Group, The University of Auckland

Date Created: 2001-11-02

Comments: This is a preliminary version to be used only as a model and will
          almost certainly change.
          Comments may be sent to cellml-discussion@cellml.org.-->

<!DOCTYPE rdf:RDF [
  <!ENTITY rdfns 'http://www.w3.org/1999/02/22-rdf-syntax-ns#'>
  <!ENTITY rdfsns 'http://www.w3.org/2000/01/rdf-schema#'>
  <!ENTITY dcns 'http://purl.org/dc/elements/1.1/'>
  <!ENTITY dctermsns 'http://purl.org/dc/terms/'>
  <!ENTITY cmetans 'http://www.cellml.org/metadata/1.0#'>
]>

<rdf:RDF
  xmlns:cmeta="&cmetans;"
  xmlns:dc="&dcns;"
  xmlns:dcterms="&dctermsns;"
  xmlns:rdf="&rdfns;"
  xmlns:rdfs="&rdfsns;"

  <!--Description of this Schema-->
  <rdf:Description rdf:about="&cmetans;">
    <dc:title>The CellML Metadata Element Set Vocabulary</dc:title>
    <dc:creator>Autumn A. Cuellar</dc:creator>
    <dcterms:created>
      <dcterms:W3CDTF>2001-11-02</dcterms:W3CDTF>
    </dcterms:created>
    <dcterms:RFC1766>en-uk</dcterms:RFC1766>
    <dc:description>
      The CellML Metadata Element Set Vocabulary is intended to enable searches
      of a CellML model repository of biological models as well as give context
      to the models.
    </dc:description>
  </rdf:Description>

  <!--Modification History: Modification-->
  <rdf:Property rdf:about="&cmetans;modification">
    <rdfs:label>Modification</rdfs:label>
    <rdfs:comment>
      A description of a change made to the content of the CellML element.
    </rdfs:comment>
    <rdf:type rdf:resource="&cmetans;annotation" />
    <rdfs:isDefinedBy rdf:resource="&cmetans;" />
  </rdf:Property>

  <!--Modification History: Modifier-->
  <rdf:Property rdf:about="&cmetans;modifier">
    <rdfs:label>Modifier</rdfs:label>
    <rdfs:comment>
      The person or group of people responsible for changes made to the CellML
      description of the model.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&cmetans;" />
  </rdf:Property>

  <!--Sex-->
  <rdf:Property rdf:about="&cmetans;sex">
    <rdfs:label>Sex</rdfs:label>
    <rdfs:comment>The sex for which a CellML element is relevant.</rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&cmetans;" />
  </rdf:Property>

  <!--Biological Entity-->
  <rdf:Property rdf:about="&cmetans;bio_entity">
    <rdfs:label>Biological Entity</rdfs:label>
    <rdfs:comment>
      A name or database unique identifier for a biological entity.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&cmetans;" />
  </rdf:Property>

  <!--Database Identifier-->
  <rdf:Property rdf:about="&cmetans;identifier">
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<rdfs:label>Database Identifier</rdfs:label>
<rdfs:comment>
  A database unique identifier for a biological entity.
</rdfs:comment>
<rdfs:subPropertyOf rdf:resource="&cmetsans;bio_entity" />
<rdfs:isDefinedBy rdf:resource="&cmetsans;" />
</rdf:Property>

<!--Database Identifier Scheme-->
<rdf:Property rdf:about="&cmetsans;identifier_scheme">
  <rdfs:label>Database Identifier Scheme</rdfs:label>
  <rdfs:comment>
    The database identifier scheme used to refer to a biological entity.
  </rdfs:comment>
  <rdfs:subPropertyOf rdf:resource="&cmetsans;identifier" />
  <rdfs:isDefinedBy rdf:resource="&cmetsans;" />
</rdf:Property>

<!--Database Identifier Type-->
<rdf:Property rdf:about="&cmetsans;identifier_type">
  <rdfs:label>Database Identifier Type</rdfs:label>
  <rdfs:comment>
    The database identifier type used to refer to a biological entity.
  </rdfs:comment>
  <rdfs:subPropertyOf rdf:resource="&cmetsans;identifier" />
  <rdfs:isDefinedBy rdf:resource="&cmetsans;" />
</rdf:Property>

<!--Mathematical Problem Type-->
<rdf:Property rdf:about="&cmetsans;math_problem">
  <rdfs:label>Mathematical Problem Type</rdfs:label>
  <rdfs:comment>
    A classification of the type of problem encoded in the math associated
    with the CellML model or model component.
  </rdfs:comment>
  <rdfs:isDefinedBy rdf:resource="&cmetsans;" />
  <rdfs:seeAlso rdf:resource="http://gams.nist.gov" />
</rdf:Property>

<!--Mathematical Problem Type: Scheme-->
<rdfs:Class rdf:about="&cmetsans;math_problem_scheme">
  <rdfs:label>Mathematical Problem Type Scheme</rdfs:label>
  <rdfs:comment>
    The scheme used to classify the type of problem encoded in the math
    associated with the CellML model or model component.
  </rdfs:comment>
  <rdfs:subPropertyOf rdf:resource="&cmetsans;math_problem" />
  <rdfs:isDefinedBy rdf:resource="&cmetsans;" />
  <rdfs:seeAlso rdf:resource="http://gams.nist.gov" />
</rdfs:Class>

<!--Mathematical Problem Type: GAMS classification tree-->
<rdfs:Class rdf:about="&cmetsans;GAMS">
  <rdfs:label>Mathematical Problem Type: GAMS classification tree</rdfs:label>
  <rdfs:comment>
    A classification of the type of problem encoded in the math associated
    with the CellML model or model component using the GAMS classification
    tree.
  </rdfs:comment>
  <rdfs:type rdf:resource="&cmetsans;math_problem_scheme" />
  <rdfs:isDefinedBy rdf:resource="&cmetsans;" />
  <rdfs:seeAlso rdf:resource="http://gams.nist.gov" />
</rdfs:Class>

<!--Annotation-->
<rdf:Property rdf:about="&cmetsans;annotation">
  <rdfs:label>Annotation</rdfs:label>
  <rdfs:comment>
    An annotation that describes the CellML model or model component.
  </rdfs:comment>
  <rdfs:isDefinedBy rdf:resource="&cmetsans;" />
</rdf:Property>

<!--Annotation: Type-->
<rdf:Property rdf:about="&cmetsans;annotation_type">
  <rdfs:label>Annotation Type</rdfs:label>
  <rdfs:comment>
    The type of annotation that describes the CellML model or model component.
  </rdfs:comment>
  <rdfs:supPropertyOf rdf:resource="&cmetsans;annotation" />
  <rdfs:isDefinedBy rdf:resource="&cmetsans;" />
</rdf:Property>

<!--Annotation: comment-->
<rdf:Property rdf:about="&cmetsans;comment">
  <rdfs:label>Comment</rdfs:label>
  <rdfs:comment>
    A free-form comment of the person who coded the model into CellML.
  </rdfs:comment>
  <rdfs:type rdf:resource="&cmetsans;annotation" />
  <rdfs:isDefinedBy rdf:resource="&cmetsans;" />
</rdf:Property>

<!--Annotation: limitation-->
<rdf:Property rdf:about="&cmetsans;limitation">
  <rdfs:label>Limitation</rdfs:label>
  <rdfs:comment>
    A description of the limitations/scope of the content of the CellML
    element.
  </rdfs:comment>
  <rdfs:type rdf:resource="&cmetsans;annotation" />

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    <rdfs:isDefinedBy rdf:resource="&cmetans;" />
  </rdf:Property>

  <!--Annotation:validation-->
  <rdf:Property rdf:about="&cmetans;validation">
    <rdfs:label>Validation</rdfs:label>
    <rdfs:comment>
      A description of the level of the content of the CellML element.
    </rdfs:comment>
    <rdf:type rdf:resource="&cmetans;annotation" />
    <rdfs:isDefinedBy rdf:resource="&cmetans;" />
  </rdf:Property>
</rdf:RDF>

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6.2 BQS Terms RDF Schema Draft

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<?xml version="1.0" encoding="iso-8859-1"?>

<!--This Version:
Title: RDF Schema Declaration Draft for Bibliographic Query Service terms.

Creator: Autumn A. Cuellar
        Bioengineering Research Group, The University of Auckland

Date Created: 2001-11-02

Comments: This is a preliminary version to be used only as a model and will
          almost certainly change (constraints need to be added, etc.).
          Comments may be sent to cellml-discussion@cellml.org.-->

<!DOCTYPE rdf:RDF [
  <!ENTITY rdfsns 'http://www.w3.org/1999/02/22-rdf-syntax-ns#'>
  <!ENTITY rdfsns 'http://www.w3.org/2000/01/rdf-schema#'>
  <!ENTITY dcns 'http://purl.org/dc/elements/1.1/'>
  <!ENTITY dctermsns 'http://purl.org/dc/terms/'>
  <!ENTITY bqsns 'http://www.cellml.org/bqs/1.0#'>
]>

<rdf:RDF
  xmlns:bqsns="&bqsns;"
  xmlns:dc="&dcns;"
  xmlns:dcterms="&dctermsns;"
  xmlns:rdf="&rdfsns;"
  xmlns:rdfs="&rdfsns;">

  <!--Description of this Schema-->
  <rdf:Description rdf:about="&bqsns;">
    <dc:title>The Bibliographic Query Service Element Set Vocabulary</dc:title>
    <dc:creator>Autumn A. Cuellar</dc:creator>
    <dcterms:created>
      <dcterms:W3CDTF>2001-11-02</dcterms:W3CDTF>
    </dcterms:created>
    <dcterms:RFC1766>en-uk</dcterms:RFC1766>
    <dc:description>
      The Bibliographic Query Service Element Set Vocabulary is intended to
      enhance searches of any document containing bibliographic references.
    </dc:description>
  </rdf:Description>

  <!--BibliographicReference Class-->
  <rdfs:Class rdf:about="&bqsns;reference">
    <rdfs:label>BibliographicReference Class</rdfs:label>
    <rdfs:comment>
      The root class for all BQS bibliographic references.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdfs:Class>

  <!--Bibliographic Identifier Type-->
  <rdf:Property rdf:about="&bqsns;identifier_type">
    <rdfs:label>Identifier Type</rdfs:label>
    <rdfs:comment>
      Gives the type of identifier being used to cite a reference.
    </rdfs:comment>
    <rdf:type rdf:resource="&dcns;identifier" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--Bibliographic Identifier Scheme-->
  <rdfs:Class rdf:about="&bqsns;identifier_scheme">
    <rdfs:label>Identifier Scheme</rdfs:label>
    <rdfs:comment>
      Identifies a cited reference using a database unique identifier.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdfs:Class>

  <!--Medline Identifier Scheme-->
  <rdfs:Class rdf:about="&bqsns;Medline_id">
    <rdfs:label>Medline identifier</rdfs:label>
    <rdfs:comment>
      The Medline database unique identifier.
    </rdfs:comment>
    <rdf:type rdf:resource="&bqsns;identifier_scheme" />
    <rdfs:seeAlso rdf:resource="http://medline.cos.com" />

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    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--PubMed Identifier Scheme-->
  <rdfs:Class rdf:about="&bqns;PubMed_id">
    <rdfs:label>PubMed identifier</rdfs:label>
    <rdfs:comment>
      The PubMed database unique identifier.
    </rdfs:comment>
    <rdf:type rdf:resource="&bqns;identifier_scheme" />
    <rdfs:seeAlso rdf:resource="http://www4.ncbi.nlm.nih.gov/PubMed/" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--CAS Identifier Scheme-->
  <rdfs:Class rdf:about="&bqns;CAS_id">
    <rdfs:label>CAS (Chemical Abstract Service) identifier</rdfs:label>
    <rdfs:comment>
      The CAS database unique identifier.
    </rdfs:comment>
    <rdf:type rdf:resource="&bqns;identifier_scheme" />
    <rdfs:seeAlso rdf:resource="http://www.cas.org/" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type-->
  <!-- <rdf:Property rdf:about="&bqns;reference_type">
    <rdfs:label>Reference Type</rdfs:label>
    <rdfs:comment>
      Identifies the genre of a cited reference.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>
  -->

  <!--Reference Type:Article-->
  <rdfs:Class rdf:about="&bqns;Article">
    <rdfs:label>Article</rdfs:label>
    <rdfs:comment>
      The cited reference is an article.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;reference" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type:JournalArticle-->
  <rdfs:Class rdf:about="&bqns;JournalArticle">
    <rdfs:label>JournalArticle</rdfs:label>
    <rdfs:comment>
      The cited reference is a journal article.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;Article" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type:BookArticle-->
  <rdfs:Class rdf:about="&bqns;BookArticle">
    <rdfs:label>BookArticle</rdfs:label>
    <rdfs:comment>
      The cited reference is a book article.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;Article" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type:Book-->
  <rdfs:Class rdf:about="&bqns;Book">
    <rdfs:label>Book</rdfs:label>
    <rdfs:comment>
      The cited reference is a book.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;reference" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type:Patent-->
  <rdfs:Class rdf:about="&bqns;Patent">
    <rdfs:label>Patent</rdfs:label>
    <rdfs:comment>
      The cited reference is a patent.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;reference" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type:Proceeding-->
  <rdfs:Class rdf:about="&bqns;Proceeding">
    <rdfs:label>Proceeding</rdfs:label>
    <rdfs:comment>
      The cited reference is a proceeding.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;reference" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type:TechReport-->
  <rdfs:Class rdf:about="&bqns;TechReport">
    <rdfs:label>Technical Report</rdfs:label>
    <rdfs:comment>
      The cited reference is a technical report.
    </rdfs:comment>
  </rdfs:Class>

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    <rdfs:subClassOf rdf:resource="&bqns;reference" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type:Thesis-->
  <rdfs:Class rdf:about="&bqns;Thesis">
    <rdfs:label>Thesis</rdfs:label>
    <rdfs:comment>
      The cited reference is a thesis.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;reference" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Reference Type:WebResource-->
  <rdfs:Class rdf:about="&bqns;WebResource">
    <rdfs:label>WebResource</rdfs:label>
    <rdfs:comment>
      The cited reference is a web resource.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;reference" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Provider-->
  <rdfs:Class rdf:about="&bqns;Provider">
    <rdfs:label>Provider class</rdfs:label>
    <rdfs:comment>
      Who the resource is provided by.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Provider Type:Person-->
  <rdfs:Class rdf:about="&bqns;Person">
    <rdfs:label>Person</rdfs:label>
    <rdfs:comment>
      The resource is provided by a person.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;Provider" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Provider Type:Organization-->
  <rdfs:Class rdf:about="&bqns;Organization">
    <rdfs:label>Organization</rdfs:label>
    <rdfs:comment>
      The resource is provided by an organization.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;Provider" />
    <rdfs:seeAlso rdf:resource="&bqns;Organisation" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Provider Type:Organisation-->
  <rdfs:Class rdf:about="&bqns;Organisation">
    <rdfs:label>Organisation</rdfs:label>
    <rdfs:comment>
      The resource is provided by an organisation.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;Provider" />
    <rdfs:seeAlso rdf:resource="&bqns;Organization" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Provider Type:Service-->
  <rdfs:Class rdf:about="&bqns;Service">
    <rdfs:label>Service</rdfs:label>
    <rdfs:comment>
      The resource is provided by a service.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="&bqns;Provider" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Subject Type-->
  <rdf:Property rdf:about="&bqns;subject_type">
    <rdfs:label>subject type</rdfs:label>
    <rdfs:comment>
      Defines the topic of a resource.
    </rdfs:comment>
    <rdfs:subPropertyOf rdf:resource="&dcns;subject" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Subject Type:Keyword-->
  <rdf:Property rdf:about="&bqns;keyword">
    <rdfs:label>keyword</rdfs:label>
    <rdfs:comment>
      Defines the topic of a resource using keywords.
    </rdfs:comment>
    <rdfs:type rdf:resource="&dcns;subject_type" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Subject Type:Subject Heading-->
  <rdf:Property rdf:about="&bqns;subject_heading">
    <rdfs:label>subject heading</rdfs:label>
    <rdfs:comment>
      Defines the topic of a resource using subject headings.
    </rdfs:comment>
  </rdf:Property>

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    <rdfs:type rdf:resource="&dcns;subject_type" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Subject Type:Classification Code-->
  <rdf:Property rdf:about="&bqns;classification_code">
    <rdfs:label>classification code</rdfs:label>
    <rdfs:comment>
      Defines the topic of a resource using classification codes.
    </rdfs:comment>
    <rdfs:type rdf:resource="&dcns;subject_type" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Entry Status-->
  <rdfs:Class rdf:about="&bqns;EntryStatus">
    <rdfs:label>Entry Status</rdfs:label>
    <rdfs:comment>
      Provides information about the citation, as opposed to the cited
      reference.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Subset-->
  <rdf:Property rdf:about="&bqns;subset">
    <rdfs:label>Subset</rdfs:label>
    <rdfs:comment>
      Provides reference subset information.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqns;EntryStatus" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Property-->
  <rdfs:Class rdf:about="&bqns;Property">
    <rdfs:label>Property</rdfs:label>
    <rdfs:comment>
      Provides a property about the reference.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdfs:Class>

  <!--Property Type-->
  <rdf:Property rdf:about="&bqns;property_type">
    <rdfs:label>Property Type</rdfs:label>
    <rdfs:comment>
      Declares the property name.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqns;Property" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Book:ISBN-->
  <rdf:Property rdf:about="&bqns;isbn">
    <rdfs:label>International Standard Book Number</rdfs:label>
    <rdfs:comment>
      International Standard Book Number unique identifier.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqns;Book" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Book (& JournalArticle):Volume-->
  <rdf:Property rdf:about="&bqns;volume">
    <rdfs:label>Volume</rdfs:label>
    <rdfs:comment>
      Book or journal volume number.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqns;Book" />
    <rdfs:domain rdf:resource="&bqns;JournalArticle" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Book:Edition-->
  <rdf:Property rdf:about="&bqns;edition">
    <rdfs:label>Edition</rdfs:label>
    <rdfs:comment>
      Book edition.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqns;Book" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Book:Series-->
  <rdf:Property rdf:about="&bqns;series">
    <rdfs:label>Series</rdfs:label>
    <rdfs:comment>
      The title of the series of which the book is a member.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqns;Book" />
    <rdfs:isDefinedBy rdf:resource="&bqns;" />
  </rdf:Property>

  <!--Book:Editor-->
  <rdf:Property rdf:about="&bqns;editor">
    <rdfs:label>Editor</rdfs:label>
    <rdfs:comment>
      The books's editor.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqns;Book" />

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    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--Article:first_page-->
  <rdf:Property rdf:about="&bqsns;first_page">
    <rdfs:label>First Page</rdfs:label>
    <rdfs:comment>
      The first page of the article referenced.
    </rdfs:comment>
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--Article:last_page-->
  <rdf:Property rdf:about="&bqsns;last_page">
    <rdfs:label>Last Page</rdfs:label>
    <rdfs:comment>
      The last page of the article referenced.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;Article" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--Article:last_page-->
  <rdf:Property rdf:about="&bqsns;last_page">
    <rdfs:label>Last Page</rdfs:label>
    <rdfs:comment>
      The last page of the article referenced.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;Article" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--JournalArticle:issue-->
  <rdf:Property rdf:about="&bqsns;issue">
    <rdfs:label>Issue</rdfs:label>
    <rdfs:comment>
      The issue in which the referenced article is found.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;JournalArticle" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--JournalArticle:issue_supplement-->
  <rdf:Property rdf:about="&bqsns;issue_supplement">
    <rdfs:label>Issue Supplement</rdfs:label>
    <rdfs:comment>
      The issue supplement in which the referenced article is found.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;JournalArticle" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--Journal-->
  <rdfs:Class rdf:about="&bqsns;Journal">
    <rdfs:label>Journal</rdfs:label>
    <rdfs:comment>
      Journal reference.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;Journal" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdfs:Class>

  <!--Journal:ISSN-->
  <rdf:Property rdf:about="&bqsns;issn">
    <rdfs:label>International Standard Serial Number</rdfs:label>
    <rdfs:comment>
      International Standard Serial Number unique identifier.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;Journal" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--Journal:abbreviation-->
  <rdf:Property rdf:about="&bqsns;abbreviation">
    <rdfs:label>Abbreviation</rdfs:label>
    <rdfs:comment>
      Journal abbreviation.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;Journal" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--Journal:abbreviation_scheme-->
  <rdf:Property rdf:about="&bqsns;abbreviation_scheme">
    <rdfs:label>Abbreviation Scheme</rdfs:label>
    <rdfs:comment>
      Standard journal abbreviation scheme.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;Journal" />
    <rdfs:subPropertyOf rdf:resource="&bqsns;abbreviation" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

  <!--WebResource:url-->
  <rdf:Property rdf:about="&bqsns:url">
    <rdfs:label>Uniform Resource Locator</rdfs:label>
    <rdfs:comment>
      The Uniform Resource Locator that identifies the Web Resource.
    </rdfs:comment>
    <rdfs:domain rdf:resource="&bqsns;WebResource" />
    <rdfs:isDefinedBy rdf:resource="&bqsns;" />
  </rdf:Property>

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</rdf:Property>

<!--WebResource:estimated size-->
<rdf:Property rdf:about="&bqsns;estimated_size">
  <rdfs:label>Estimated Size</rdfs:label>
  <rdfs:comment>
    The estimated size of the Web Resource.
  </rdfs:comment>
  <rdfs:domain rdf:resource="&bqsns;WebResource" />
  <rdfs:isDefinedBy rdf:resource="&bqsns;" />
</rdf:Property>

<!--WebResource:cost-->
<rdf:Property rdf:about="&bqsns;cost">
  <rdfs:label>Cost</rdfs:label>
  <rdfs:comment>
    The cost of the Web Resource.
  </rdfs:comment>
  <rdfs:domain rdf:resource="&bqsns;WebResource" />
  <rdfs:isDefinedBy rdf:resource="&bqsns;" />
</rdf:Property>
</rdf:RDF>
```

E-mail questions, criticism, submissions or info to info@cellml.org
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