2-generator discrete groups and hyperbolic orbifolds

**Dal** 2004-12-01 **al** 2006-11-30

### Dettagli del progetto

<table>
<thead>
<tr>
<th>Costo totale:</th>
<th>Argomento (i):</th>
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<tbody>
<tr>
<td>EUR 150 281</td>
<td>MOBILITY-2.3 - Marie Curie Incoming International Fellowships (IIF)</td>
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<th>Contributo UE:</th>
<th>Invito a presentare proposte:</th>
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<td>EUR 150 281</td>
<td>FP6-2002-MOBILITY-7 See other projects for this call</td>
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<th>Coordinato in:</th>
<th>Meccanismo di finanziamento:</th>
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<td>France</td>
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### Obiettivo

This project deals with the classification problem of 3-dimensional hyperbolic orbifolds or equivalently, the classification problem of discrete subgroups of PSL(2, C) which is isomorphic to the isometry group of the hyperbolic 3-dimensional space. We concentrate on 2-generator groups and orbifolds. The first part is dedicated to finding criteria (necessary and sufficient conditions) for discreteness of 2-generator subgroups of PSL(2,C) without invariant planes.

The project is aimed to obtaining criteria that are convenient for different applications in algebra and topology. In the second part the aim is to describe all hyperbolic 3-orbifolds, i.e., to present their singular sets and the underlying spaces and to give conditions when such orbifolds exist. Another question arising here is to establish when an abstract group can be the fundamental group of a (hyperbolic) 3-orbifold. For example, hyperbolic 3-orbifolds are closely related to generalised triangle and tetrahedron groups. We plan to develop further connections between these objects.

### Informazioni correlate

**Sintesi delle relazioni**

Final Activity Report Summary - NKHYPORB (2-generator Discrete Groups and Hyperbolic Orbifolds)
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