1. Introduction

- Real-time streaming applications
  - Require timing correctness
  - Run continuously
  - Process infinite input stream

- Dataflow
  - Suitable to model real-time streaming applications

<table>
<thead>
<tr>
<th>Dataflow</th>
<th>Analytical properties</th>
<th>Expressiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static dataflow</td>
<td>Strong</td>
<td>Limited</td>
</tr>
<tr>
<td>Mode-controlled dataflow</td>
<td>Strong</td>
<td>Medium</td>
</tr>
<tr>
<td>Dynamic dataflow</td>
<td>Limited</td>
<td>Strong</td>
</tr>
</tbody>
</table>

2. Motivation

3. Buffer allocation

4. Data-dependent (dynamic) behavior

- Mode-Controlled Dataflow (MCDF)

5. Results

6. Conclusion

Contact

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