### 55B. System Reliability

<table>
<thead>
<tr>
<th>Session Date:</th>
<th>March 10(Fri.), 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session Time:</td>
<td>13:15-14:40</td>
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<tr>
<td>Session Room:</td>
<td>Room B (#307 bc)</td>
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<td>Session Chair:</td>
<td>Dr. Alexander Grill (imec)</td>
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<td>Prof. Sangwan Kim (Sogang University)</td>
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</tbody>
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#### [55B-1] [Invited] 13:15-13:40

**Enhanced Thermo-Mechanical Reliability of High Bandwidth Memory through Mass Reflow Bonding and Molded Underfill**

Sangyong Lee, Jong-Kyu Moon, Taehee Kim, Kyungbeom Seo, Minsuk Kim and Gyujei Lee

*SK hynix Inc.*


**Prediction of Crack Type and Life of Printed Circuit Board under Thermal Cycling with Respect to Solder Composition**

Heon-Su Kim1, You-Gwon Kim1, Do-Hyung Kim2, Dong-Min Jang2, Jin-Woo Jang2, Seung-Yeong Lee2 and Hak-Sung Kim1

1*Hanyang University, 2Samsung Electronics Co., Ltd.*

#### [55B-3] 13:55-14:10

**Impact of RF Frequency Bands on the DC and Large Signal Reliability of a 45nm RF SOI NFET Based Power Amplifier Cell**

Aarti Rathi1, P. Srinivasan2 and Abhisek Dixit1

1*Indian Institute of Technology Delhi, 2GlobalFoundries*

#### [55B-4] 14:10-14:25

**Reliability Prediction for Automotive 5nm and 7nm Technology Node by Using Machine Learning Based Solution**

Hyung Joo Lee1, Dongin Kim2, Sanghyun Choi3, Seungpyo Hong3, Doohwan Kwak3, Srividya Jayaram1, Seungwon Paek2, Minho Kwon2, Yeongdo Kim2, Hyobe Jung2, Ivan Kissiov1, Melody Tao1, Andres Torres1, Nathan Greenelitch1 and Ho Lee2

1*Siemens EDA, 2Samsung Electronics Co., Ltd.*

#### [55B-5] 14:25-14:40

**Predictable ESD Criteria with Proposed Comparison Diagram between TLP and HBM ESD for Various Device Technologies and Different Substrates**

Hyeokjae Lee1, Dong-Sung Kim1, Jae-Young Noh1, Youngboo Kim1, Jisun Park2 and Hyungsoon Shin2

1*QRT Inc, 2Ewha Womans University*