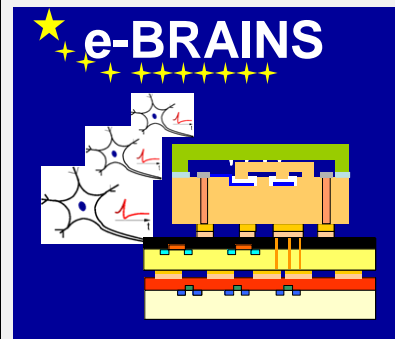


## Heterogeneous 3D integration considered by the perspective of reliability studied in the European projects e-BRAINS and ESiP



**Best-Reliable Ambient Intelligent Nanosensor Systems by Heterogeneous Integration**



JU Grant Agreement number: Call 2009 / 120227

**ESiP**

**“Efficient Silicon**

**Multi-Chip System-in-Package Integration**

—

**Reliability, Failure Analysis and Test”**



# **Heterogeneous 3D integration considered by the perspective of reliability studied in the European projects e-BRAINS and ESiP**

**e-BRAINS Coordinator: Reinhard Pufall**

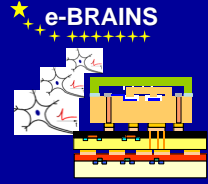
<mailto:Reinhard.Pufall@infineon.com>

<http://www.e-brains.org>

**ESiP Coordinator: Klaus Pressel**

<mailto:Klaus.Pressel@infineon.com>

**Preliminary schedule at ESREF2012:  
Monday October 1, 13.00 - 18.00 (5 hours)**



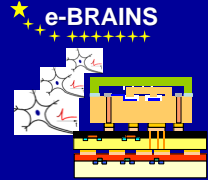
Chair: Reinhard Pufall/ Peter Ramm

1. Reinhard Pufall  
„Reliability for heterogeneous 3D integration“
2. Armin Klumpp, Peter Ramm  
"Low-Temperature 3D Integration Processes for Reliable Heterogeneous Systems"
3. Maaïke Taklo  
„Robust design for nanostructures for optical field manipulation“
4. Alan Mathewson et al.  
„Nanowire ACF for low temperature and fine pitch assembly technologies “
5. Renzo dal Molin  
“Challenges of Active Medical Implants”



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**ESiP**  
**“Efficient Silicon  
Multi-Chip System-in-Package Integration  
—  
Reliability, Failure Analysis and Test”**



**Chair: Klaus Pressel / H.J. Albrecht**

6. Reliability and failure analysis: Challenge and differentiators for 3D-SiP  
An introduction into the ESiP project (by [Klaus Pressel, Infineon](#))
7. "Heterogeneous Integration of nanowires for gas sensing applications and resulting reliability issues" (by [Anton Köck, AIT, Austria](#))
8. "Thermal and mechanical reliability tests of plastic core solder balls"  
(by [Maaïke Visser Taklo, Sintef, Norway](#))
9. "Enhanced failure analysis on unfilled TSV interconnects"  
(by Frank Altmann/FhG IWMH and Franz Schrank /AMS Austria)
10. Acoustic microscopy for 3D-SiP failure analysis  
(by [Peter Czurratis, PVA Tepla, Germany](#))
11. Reliability capability evaluation model for highly integrated packages"  
(by [H.J. Albrecht/Siemens, Germany](#)).
12. Implementing anti-counterfeiting technologies into IC packages – impacts & challenges in terms of reliability & failure analysis  
(by [Stephanie Pesseguier, STMicro France](#))



Dr. Reinhard Pufall, Infineon  
Dr. Klaus Pressel, Infineon