# Article information:

Modelling and measurement of the nonlinear behaviour of kissing bonds in adhesive joints - ScienceDirect  
<https://www.sciencedirect.com/science/article/abs/pii/S0963869511001812>

# Article summary:

1. The non-destructive evaluation of adhesively bonded joints is an important subject for both industry and academia.

2. Kissing bonds, which are areas of interfacial weakness, can be detected using high frequency ultrasonic C-scanning.

3. A one-dimensional time domain model was used to predict the interaction of ultrasonic pulses with a kissing bond, and it was found that the measured nonlinearity is highly dependent on the thickness of the adhesive layer to wavelength ratio.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Modelling and Measurement of the Nonlinear Behaviour of Kissing Bonds in Adhesive Joints” is a well-researched and comprehensive piece that provides an in-depth look at the non-destructive evaluation of adhesively bonded joints. The article presents a thorough overview of the topic, including experimental measurements, modelling results, and discussion. The authors provide evidence to support their claims and present their findings in a clear and concise manner.

The article does not appear to have any major biases or unsupported claims; however, there are some points that could be explored further. For example, while the authors discuss how kissing bonds can be detected using high frequency ultrasonic C-scanning, they do not explore other possible methods for detecting such bonds. Additionally, while they discuss how linear dynamics act as bandpass filters on nonlinear signals generated at the kissing interface, they do not provide any evidence or examples to support this claim.

In conclusion, this article is generally reliable and trustworthy; however, there are some points that could be explored further in order to make it more comprehensive and accurate.

# Topics for further research:

* Non-destructive evaluation of adhesively bonded joints
* Detection of kissing bonds
* High frequency ultrasonic C-scanning
* Linear dynamics and nonlinear signals
* Bandpass filters for nonlinear signals
* Examples of kissing bonds detection

# Report location:

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