

**Paper Title:** Explainable skin lesion diagnosis using taxonomies

**Paper Link:** <https://doi.org/10.1016/j.patcog.2020.107413>

## **Summary**

### **1.1 Motivation**

The researchers aimed to develop a skin cancer diagnostic system.

### **1.2 Contribution**

The researchers proposed to combine multi-task CNNs with visualization methods to develop an explainable CADS(Computer Aided Diagnostic System) for skin cancer diagnosis..

### **1.3 Methodology**

The proposed method mimics the hierarchical decisions made by dermatologists, thus medical knowledge is incorporated in the design of the network.

### **1.4 Conclusion**

The experimental results show that the model can identify clinically relevant regions in the images and use them to provide a diagnosis.

## **2 Limitations**

2.1 Standardization of the color of dermoscopy images through normalization has not been performed.

2.2 The perception of color by CNNs, in order to make them more robust to color changes has not been addressed.