Yuyang’s collaboration with our research group at Hewlett Packard Labs during his PhD was a productive chapter in the exploration of silicon microring-based DWDM transceiver links. As the lead principal investigator here, I had the privilege to oversee Yuyang's innovative contributions alongside my esteemed colleagues. His insightful research has significantly advanced our understanding of the impact of process variations on optical interconnect solutions, leading to the development of strategic mitigation techniques.

Focusing on the energy efficiency of silicon photonic transceivers, Yuyang’s work was critical in addressing the challenges of thermal tuning required to rectify process variations. His clever methods reduced the energy needed for thermal tuning while carefully addressed the complex trade-offs in the overall link energy efficiency. Beyond theoretical solutions, Yuyang also developed and implemented custom algorithms to navigate the intricate optimization problems that are often NP-hard. This holistic approach highlights the completeness of his work in collaboration with us.

Yuyang’s work extended beyond optimizing individual transceivers to encompass the broader scope of network topologies and system applications. His research scrutinized various network configurations and their implications on thermal tuning requirements, introducing tailored algorithms aimed at boosting network and system energy efficiency. This comprehensive approach was essential in making his work both theoretically sound and practically relevant.

Our collaboration with Yuyang was marked not only by significant productivity but also a shared joy in discovery and innovation. His commitment, originality, and independent problem-solving skills profoundly impressed us. His ideas, original and independently developed, significantly enhanced the breadth of our group's research impact. His accomplishments in collaboration with my group at Hewlett Packard Labs affirm his extraordinary talent and unwavering dedication to advancing optical interconnect technologies.