



## **QNERC Seminar**

**Wednesday, June 25, at 16:00 – 17:00**  
**Conference Room 605, South-9**

### **ZnO SAW and FBAR Technologies for Lab-on-a-chip Applications**

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This presentation will describe the development of Biological Sensors based on SAW and FBAR Technologies. The SAW devices were fabricated on nanocrystalline ZnO thin films deposited using a novel High Target Utilisation Sputtering System (HiTUS). The system ensures that we can produce the low stress films at the high deposition rates necessary for such structures to operate efficiently. However in order to further improve the sensitivity of our bio-sensors we have also investigated the use of Thin Film Bulk Acoustic Resonators (FBARs) and I will also report our recent work on this. I will describe gravimetric sensors based on such sensors, and end with a description of our most recent results on dual mode thin film FBARs for parallel sensing of both mass loading and temperature.

世界トップレベルの海外大学からの教員招聘プログラム特任教授として量子ナノエレクトロニクス研究センターに滞在中のケンブリッジ大学 William Milne 先生に、最近注目されている半導体ナノ構造のバイオセンサ応用に関するお話をして頂きます。  
ふるってご出席下さい。

連絡先：小田俊理（3048）