



**UCD School of  
Mathematics and Statistics**

University College Dublin  
Belfield, Dublin 4, Ireland

Tel +353 1 716 2580  
Fax +353 1 716 1196

**Scoil na  
Matamaitice agus na Staitisticí UCD**

An Coláiste Ollscoile, Baile Átha Cliath  
Belfield, Baile Átha Cliath 4, Éire

Email [seminars@maths.ucd.ie](mailto:seminars@maths.ucd.ie)  
Web [maths.ucd.ie/seminars](https://maths.ucd.ie/seminars)

## K-Theory, Quadratic Forms and Number Theory Seminar

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**Tibor Juhász (Institute of Mathematics, Eger, Hungary)**

will speak on

**On group algebras of groups with cyclic derived subgroup**

Wed 23rd March 2011 at 3:00PM

Location: Mathematical Sciences Seminar Room

Let  $G$  be a  $p$ -abelian group with cyclic derived subgroup, here  $p$  is an odd prime, and let  $F$  be a field of characteristic  $p$ . Denote by  $FG_+$  the set of symmetric, by  $FG_-$  the set of skew symmetric elements of the group algebra  $FG$ , with respect to the canonical involution. In this talk we determine - the Lie derived length and the strong Lie derived length of  $FG$ ; - the Lie derived length of  $FG_+$  and  $FG_-$ , provided that  $G$  is nilpotent; - the Lie nilpotency indices of  $FG$  and  $FG_+$ ; - the derived length and the nilpotency class of the unit group of  $FG$ ; - the derived length and the nilpotency class of the units of  $FG_+$ , provided that  $G$  is torsion and nilpotent group.

This talk is part of the **K-Theory, Quadratic Forms and Number Theory** series. For more, see <https://maths.ucd.ie/seminars>