

مقاله در CD کنفرانس  
اولین همایش ملی مهندسی سبیل‌ها (کال‌ها)  
مشهد مقدس - ۹ و ۱۰ اسفند ۸۵



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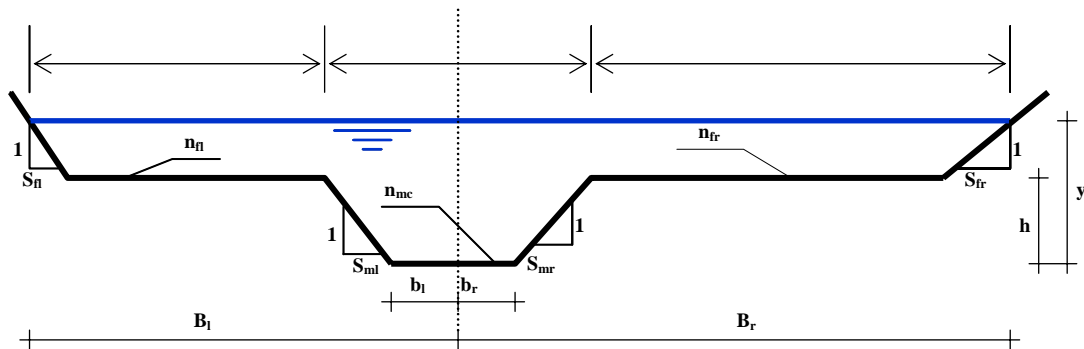
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(Knight, 2001; Atabay and Knight, 2006)

FCF



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: SCM (Single Channel Method)

: **DCM (Divided Channel Method)**

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: **WDCM (Weighted Divided Channel Method)**

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.(Lambert and Myers, 1998)

: **COH (Coherence)**

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DCM SCM

Ackers .(Ackers, 1992)

WDCM

: **EDM (Exchange Discharge Model)**

.(Bousmar and Zech, 1999)

FCF

FCF

FCF

(Myers, 2003)

«Birmingham»

(Wormleaton, 1982)

(Bousmar, 2002)

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$$RE_i = \frac{(x_c)_i - (x_o)_i}{(x_o)_i} \times 100 \quad ( )$$

, RE<sub>i</sub> x i , (x<sub>c</sub>)<sub>i</sub> x i , (x<sub>o</sub>)<sub>i</sub>

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( ) «

$$MARE = \frac{\sum_{i=1}^N |RE_i|}{N}$$

( )

, MARE , N

( )

S <sub>o</sub>	n <sub>r</sub>	h	S <sub>r</sub>	S <sub>m</sub>	B/b	b <sub>r</sub>	b <sub>l</sub>	Br	B <sub>l</sub>	N		
/	/	/			/	/	/	/	/		FCF-SN01	
/	/	/			/	/	/	/	/		FCF-SN02	
/	/	/			/	/	/	/	/		FCF-SN03	
/	/	/			/	/	/	/	/		FCF-SN06	
/	/	/			/	/	/	/	/		FCF-SN08	
/	/	/			/	/	/	/	/		FCF-SN10	
	/	/			/	/	/	/	/		Wormleaton-A	
/	/	/			/	/	/	/	/		Myers-1	
/	/	/			/	/	/	/	/		Bousmar	
/	/	/			/	/	/	/	/		Alavi-Steep	
/	/	/			/	/	/	/	/		Alavi-Mild	
/		/			/	/	/	/	/		FCF-SN07	
/		/			/	/	/	/	/		FCF-SN11	
/	/	/			/	/	/	/	/		Wormleaton-B	
/	/	/			/	/	/	/	/		Wormleaton-C	
	/	/			/	/	/	/	/		Wormleaton-C	

: S<sub>o</sub> ,  $n_r \frac{B}{b} = \frac{B_r + B_l}{b_r + b_l}$  , ( ) : N

, COH ,

SCM ,

, DCM

EDM	COH	WDCM	DCM	SCM	
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EDM	COH	WDCM	DCM	SCM	
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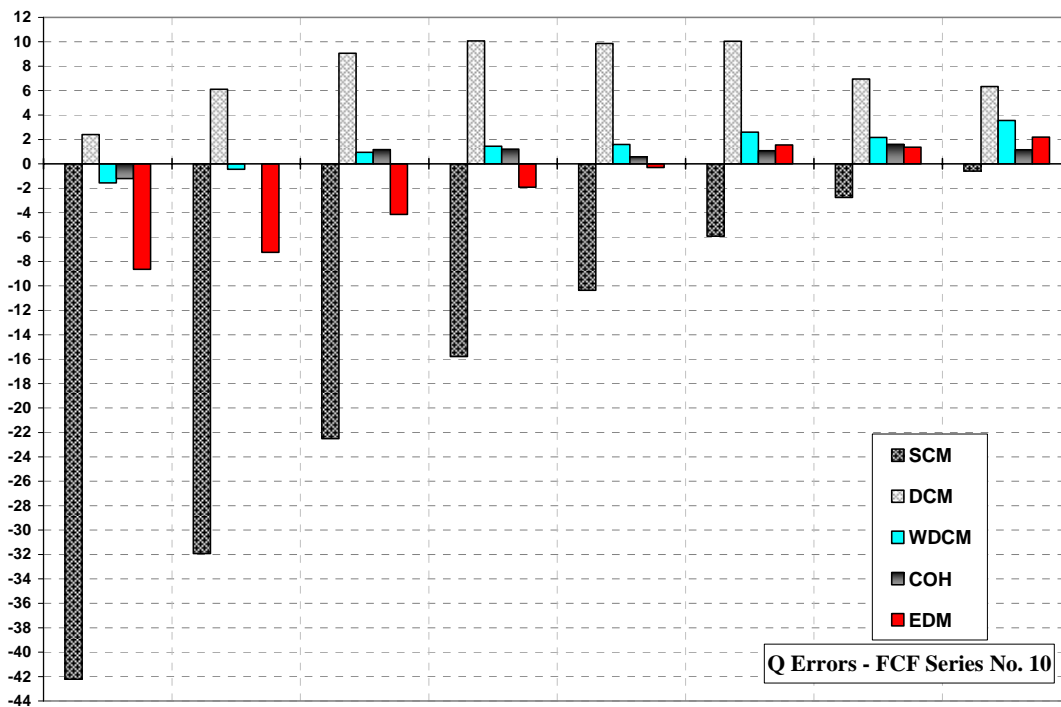
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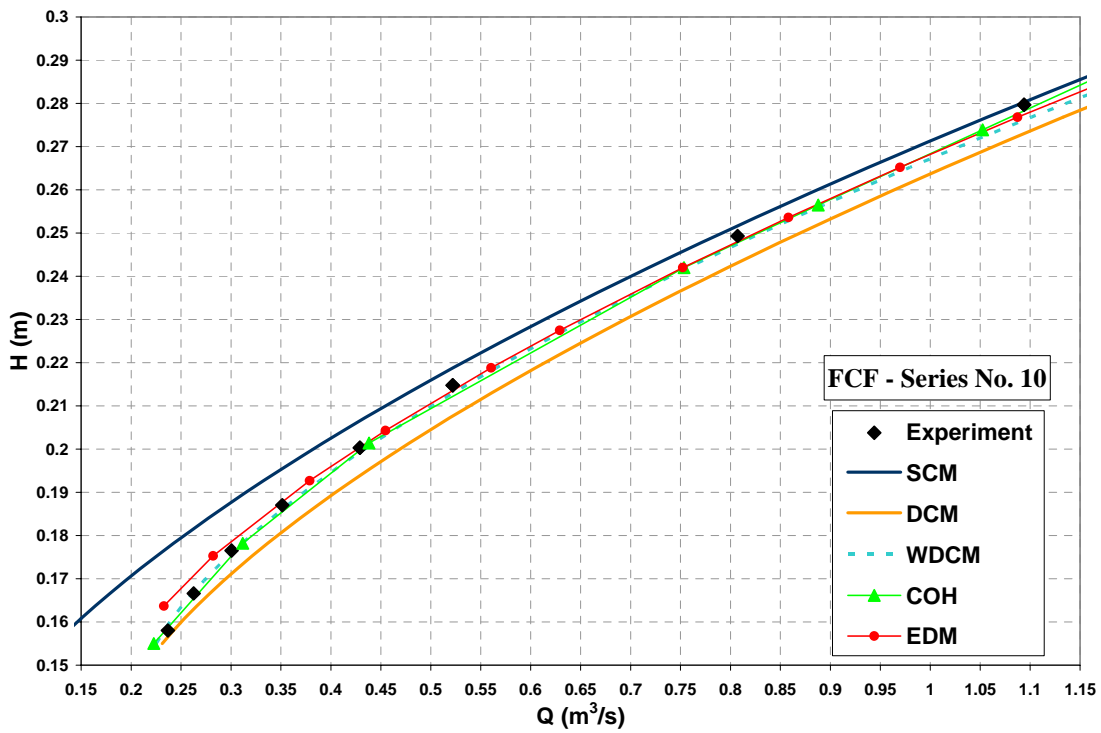
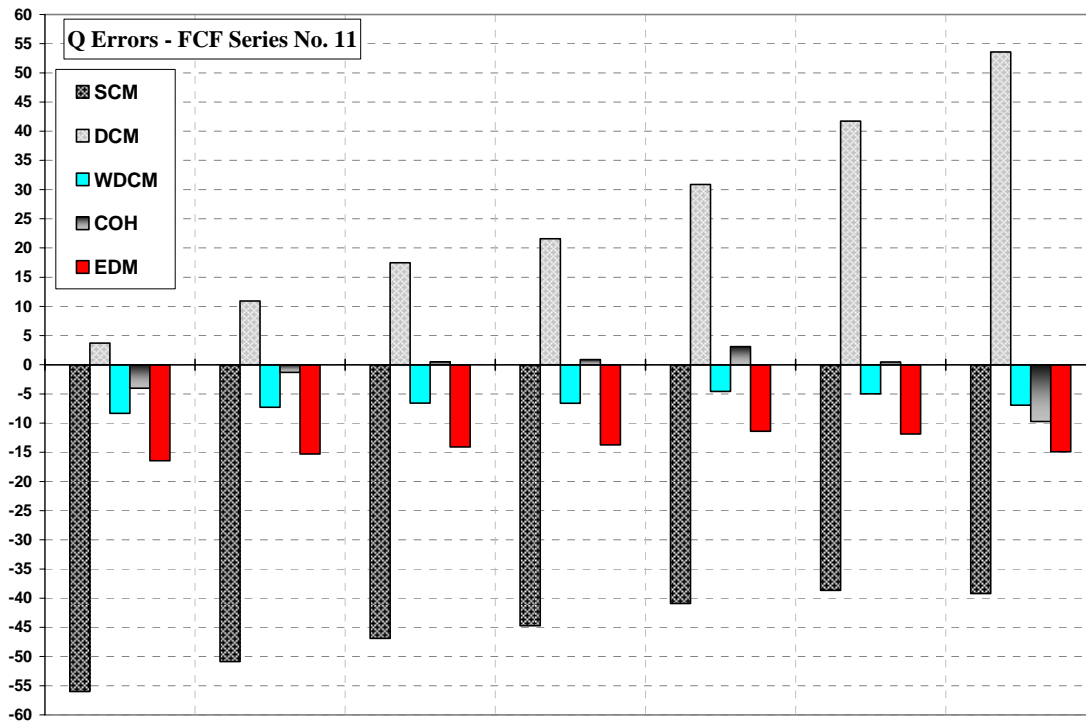
, EDM

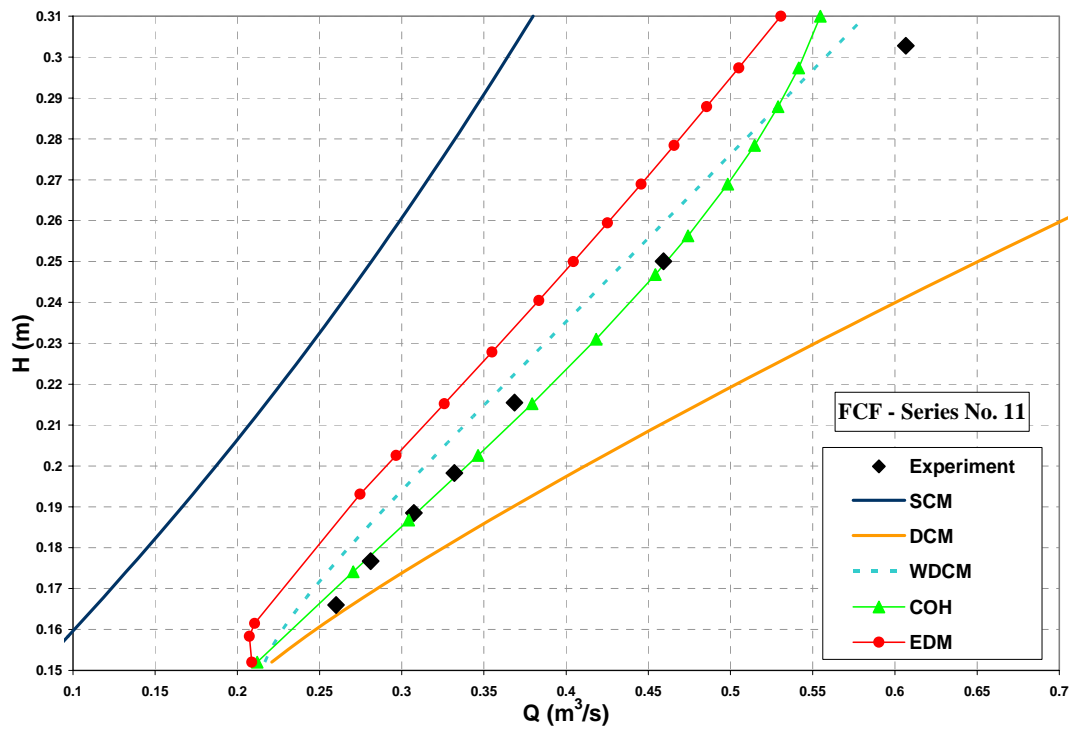
WDCM COH



EDM COH  
 - SCM  
 DCM WDCM  
 WDCM SCM EDM COH  
 -  
 COH  
 COH SCM  
 DCM SCM  
 - DCM SCM  
 DCM SCM







.( )

(Hosseini, 2004)

HEC-RAS .

HEC-RAS

DCM

WDCM

HEC-RAS

SCM

DCM

SCM

EDM COH

DCM

WDCM

WDCM

SCM

EDM COH

COH

EDM

WDCM

EDM

EDM COH

WDCM

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Ackers, P. 1992. Flow formulae for straight two-stage channels. *J. Hyd. Res. IAHR*. 31(4): 509-531.

Atabay, S., and Knight, D. W. 2006. 1-D modelling of conveyance, boundary shear and sediment transport in overbank flow. *J. Hyd. Res. IAHR*. 44(6): 739-754.

Bousmar, D. 2002. Flow Modelling in Compound Channels, Momentum Transfer between Main Channel and Prismatic or Non-Prismatic Floodplains. Thesis presented for the degree of Doctor in Applied Sciences. Universite Catholique de Louvain. 306P.

Bousmar, D., and Zech, Y. 1999. Momentum transfer for practical flow computation in compound channels. *J. Hyd. Eng. ASCE*. 125(7): 696-706.

Knight, D. W. 2001. Conveyance in 1-D River Models. H. R. Wallingford Report. 31P.

Lambert, M. F., and Myers, W. R. C. 1998. Estimating the discharge capacity in straight compound channels. *Proc. Instn. Civ. Engrs. Wat., Marit. and Energy*. 130(June): 84-94.

Myers, W. R. C., Lyness, J. F., Cassells, J. B. and O'Sullivan, J. J. 2003. Influence of planform, boundary roughness and scale on flow resistance in compound channels. *Proceedings of 30<sup>th</sup> IAHR Cong. Greece. Theme C, Vol. 1: 73-80.*

Wormleaton, P. R., Allen, J. and Hadjipanous, P. 1982. Discharge assessment in compound channels flow. *J. Hyd. Eng. ASCE*. 108(HY9): 975-994.