

# NCR DAYS BOOK OF ABSTRACTS

Dummy cover page

# NCR DAYS 2018

*The future river*

*Jonathan Archer & Malcolm Reed (eds.)*

Organising partner:

# Deltares

**Conference venue**

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**Cite as:** Archer, J., Reeds, M. (eds.) (2018), *The future river: NCR DAYS 2018 Proceedings*. Netherlands Centre for River Studies publication 42-2018

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## Preface

The NCR DAYS 2018 present the 20th time this conference is organised! Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

With riverine thoughts,  
the LOC

## Conference details

### Organising partner

This partner is the best partner since 1648... Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

### Venues

Our campus was founded by the Visigoths and is widely considered ... Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

### Local organising committee (LOC)

The LOC, colloquially refereed to as 'The Avengers' consists of ... Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

# Program

# SECTION 1

## Morphology & Sediment Transport

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# A good title only has one capitalised word

Jonathan Archer<sup>a,b,\*</sup>, Montgomery Scott<sup>a</sup>, Kathryn Janeway<sup>a</sup>

<sup>a</sup>24-593 Federation Drive, San Francisco

<sup>b</sup>360 Park Avenue South, New Berlin

**Keywords** — Keyword1, Keyword, Keyword3

## Sectioning

The common paragraph structure of a paper is: Introduction (background, motivation of research), Method, Results, Conclusion, (Acknowledgements), References. There is no abstract or subtitle, but you can provide up to three keywords.

### Subsection

You can use subsection to structure sections. Don't use levels lower subsections (so no subsections or paragraphs). When abbreviations are used in an abstract submitted to the Netherlands Centre for River studies (NCR), make sure they are explained the first time introduced.

## Lists

To list items, you can either use numbered lists:

1. Item 1
2. Item 2

Or bullets:

- Item 1
- Item 2

## Figures

Refer to figures in the text as: Fig. 1. Each figure has a figure caption below the figure (see example Fig. 1). Make sure that the text and numbers in the figure are legible and of good quality. When fitting a figure in a column makes the figure illegible, you can use the entire

## Citing and referencing

Refer to literature in the text as ([Beck, 2002](#)) or when the authors name is used in the text: [Beck \(2002\)](#). Use the prescribed bibliography style file. Make sure that all references mentioned in the text are listed at the end of the paper under references and vice versa. Refer to an address of website, repository or explicitly: [www.ncr-web.org](http://www.ncr-web.org).



Figure 1: A photograph of a feline studying momentum distribution in a strongly curved open channel

## Tables

Refer to tables in the text as: Table 1. Each table has a table caption above the table. The layout is flexible and to your own preference. However, make sure that the table is legible. The same as with figures, when fitting a table in a column reduces the legibility, you can use the entire width of the page.

Table 1: Tables

	Column 1	Column 2
Row 1	item(1,1)	item(1,2)
Row 2	item(2,1)	item(2,2)

## Equations

$$Y_i = \nu + \beta(X_i - \mu) + \theta\lambda \quad (1)$$

## Conclusion

The conclusion goes here.

## Acknowledgements

This research has benefited from cooperation within the Netherlands Centre for River studies and is sponsored under grant Wolf-359

## References

Beck, B. (2002), Model evaluation and performance, in *Encyclopedia of Environmetrics*, edited by A. H. El-Shaarawi and W. W. Piegorsch, John Wiley and Sons Ltd.

\*Corresponding author

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URL: [www.startfleetacademy.com/jonathan](http://www.startfleetacademy.com/jonathan) (Jonathan Archer)

# Title, only first letter capital (Arial bold 16 pt)

*Empty line or special paper notice. Arial italic 10 pt.*

(Authors: full first name preferred. Affiliation letter in superscript. Arial 10 pt, e.g. Albert B. Author<sup>a,b\*</sup>,  
Collin Author<sup>a</sup>

<sup>a</sup>*Affiliation full address (Arial italic 9 pt)*

<sup>b</sup>*Second affiliation full address (Arial italic 9 pt)*  
*(empty line, Arial 10 pt)*

**Keywords** — Keyword 1, Keyword 2, Keyword 3

*(Empty line Arial 10 pt)*

## Layout (Headings: Arial bold 11 pt)

Main text: Arial 10 pt, justified. Paper Size A4.  
Margins: Top: 2.5 cm, Left 2.5 cm, Bottom 2.5 cm, Right 2.5 cm. Header: 1.25 cm, Footer: 1.25 cm. Title, authors and addresses are across the whole page, the main text is in two columns (Width: 7.4 cm, Spacing: 1.2 cm). All text is aligned left. Line spacing: single.

*(Between paragraphs empty line Arial 10 pt)*

## Structure

The common paragraph structure of a paper is: Introduction (background, motivation of research), Method, Results, Conclusion, (Acknowledgements), References. No abstract is required.

Numbering or bullets:

1. Numbers are aligned left, indent 0.5 cm.

• Bullets are aligned left, indent 0.5 cm.

## Subparagraph

Subparagraphs with a heading have a heading in Arial bold and italic 10 pt and are separated from the preceding text by an empty line.

Subparagraphs without heading can be separated by either an empty line or by an indent of 0.5 cm, depending on your preference or available space.

When abbreviations are used, make sure they are explained the first time introduced.

## Figures

Refer to figures in the text as: Fig. X, where X is the number of the figure. Each figure has a figure caption below the figure (see example Fig. 1). Make sure that the text and numbers in the figure are legible and of good quality. When fitting a figure in a column makes the figure illegible, you can use the entire width of the page. Figures can be in colour.

as

## Tables

Refer to tables in the text as: Table X. Each

table has a table caption above the table (see example Table 1). The layout (lines/no-lines, font size ( $\leq 10$  pt)) is flexible and to your own preference. However, make sure that the table is legible. The same as with figures, when fitting a table in a column reduces the legibility, you can use the entire width of the page.

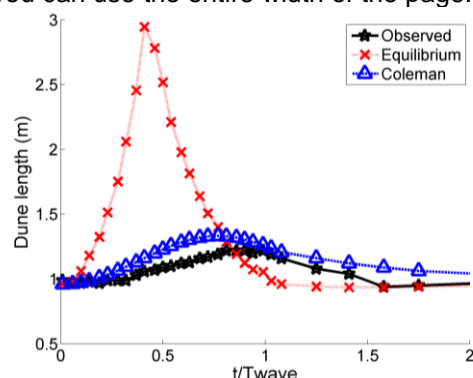


Figure 1. Dune height and dune length prediction using the time-lag approach. (Example of a figure with caption, Arial italic 8 pt.)

Table 1. Maximum discharge ( $\text{m}^3/\text{s}$ ) and associated water level (cm +NAP) in the Rhine at Lobith in the period 2005-2010 (data from <http://live.waterbase.nl/>). (Example of table with heading, Arial italic 8 pt.)

Year	Discharge ( $\text{m}^3/\text{s}$ )	Water level (cm + NAP)
2005	5542	1333
2006	5776	1351
2007	6136	1377
2008	4473	1231
2009	4417	1227
2010	5829	1354

## Equations

Equations are in Arial italic 10 pt. For example:

$$C_r = \sqrt{\frac{1}{\frac{1}{C_0^2} + \frac{C_D D h N}{2gA_p}}} \quad (1)$$

Leave an empty line before and after the equation. Number equations as above and refer to equations in the text as Eq. (X) or (Eq. X). Explain all symbols in the equations.

\* Corresponding author

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URL: [www.affiliation.com/abauthor](http://www.affiliation.com/abauthor) (A.B. Author)

(Arial, 8pt)

!! Do not change location of this box !!

## References in text

Refer to literature in the text as (Author, 2007) or when the author's name is used in the text: Author (2007). Two authors are referred to as (Author and Bauthor, 2007). When there are more than two authors refer to (Author et al., 2007). Make sure that all references mentioned in the text are listed at the end of the paper under references and vice versa.

## References

References are in Arial 8 pt. Indent second line: 0.25 cm. Below examples are given for different sources.

### *Paper:*

Shiono, K., Knight, D.W. (1991) Turbulent open channel flows with variable depth across the channel. *Journal of Fluid Mechanics*, 222: 617-646.

### *Book:*

Jansen, P.Ph., Van Bendegom, L., Van den Berg, J., De Vries, M., Zanen, A. (1979) *Principles of river engineering. The non-tidal alluvial river.* Delftse Uitgevers Maatschappij. 509 p.

### *Report:*

Parmet, B.W.A.H., Van de Langemheen, W., Chbab, E.H., Kwadijk, J.C.J., Diermanse, F.L.M., Klopstra, D. (2001) *Analyse van de maatgevende afvoer van de Rijn te Lobith.* Institute for Inland Water Management and Waste Water Treatment (RIZA), RIZA report 2002.012. Arnhem, The Netherlands.

### *Website:*

McGahey, C. and Samuels, P. G. (2006) Methodology for Conveyance estimation in Two-Stage Straight, Skewed and Meandering Channels, <http://www.river-conveyance.net/documents/AHRXXXCongresspaper.pdf>. Last accessed Jan. 2006.

## Session 2

# A good title only has one capitalised word

Jonathan Archer<sup>a,b,\*</sup>, Montgomery Scott<sup>a</sup>, Kathryn Janeway<sup>a</sup>

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<sup>b</sup>360 Park Avenue South, New Berlin

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Figure 1: A photograph of a feline studying momentum distribution in a strongly curved open channel

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## References

Beck, B. (2002), Model evaluation and performance, in *Encyclopedia of Environmetrics*, edited by A. H. El-Shaarawi and W. W. Piegorsch, John Wiley and Sons Ltd.

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URL: [www.startfleetacademy.com/jonathan](http://www.startfleetacademy.com/jonathan) (Jonathan Archer)

## About NCR

### Objective of NCR

NCR was founded as a formal cooperation between several Dutch institutions. On October 4, 2012, the partners of the 'Netherlands Centre for River studies' (NCR, Dutch: 'Nederlands Centrum voor Rivierkunde (NCR)') formally renewed their cooperation within NCR.

The objective of NCR is:

Doelstelling van het NCR is een samenwerking tot stand te brengen tussen de belangrijkste kennisgebruikers en kennisontwikkelaars in Nederland op het gebied van rivieren met als uiteindelijk resultaat een versterking van het kennispotentieel, de profilering van de (inter)nationale positie van het Nederlands rivieronderzoek en het versterken van het onderwijs en het wetenschappelijk onderzoek aan de Nederlandse Universiteiten ten behoeve van een betere inrichting en beheer van de Nederlandse rivieren.

This translates to:

The objective of the NCR is to establish cooperation between the major knowledge suppliers and knowledge users in Netherlands in the field of river studies, with the ultimate aim of reinforcing the knowledge potential, promoting the international position of Dutch river research and strengthen the education & scientific research at Dutch universities, to better design and manage Dutch rivers.

### Domains

NCR encompasses all disciplines relevant to river studies as practices by its institutional partners. They include:

- Hydrodynamics
- Sediment transport and morphology
- Fluvial geomorphology and sedimentology

- River ecology, restoration and water quality
- Governance and spatial planning
- Modelling, serious gaming and digital twins

### NCR Organisation

NCR has four main bodies. The mandates for all except Young NCR (YNCR) are documented in the "*Overeenkomst Nederlands Centrum voor Rivierkunde 2012*".

- **Programme Secretary (Dutch: Programmasecretaris)**  
Safeguards the continuity of NCR activities, secretary to SB and PC; monitors of agreed actions by the SB and PC; reports of NCR finances; management of all NCR communications.
- **Supervisory Board (Dutch: Commissie van Toezicht)**  
Supervises the implementation of the cooperation agreement, settles disputes and approves the scientific programme.
- **Program Committee (Dutch: Programmacommissie)**  
Determines the scientific programme, stimulates and initiates proposals for activities and integration of knowledge, ideas, experiences and results.
- **Young NCR (Dutch: Jong NCR)**  
Established in December 2020, YNCR strives to strengthen the network of young/early-career scientists within NCR.

### Institutional partners

The partners of NCR are: Rijkswaterstaat (RWS), Universiteit Twente (UT), Radboud Universiteit Nijmegen (RUN), Deltares, Universiteit Utrecht (UU), Technische Universiteit (TUD), Wageningen University & Research (WUR), Leiden

University Collega (LUC) and Vrije Universiteit Amsterdam (VU).

## Accountability

Each partner contributes in-kind and/or in-cash to realise the annual programme.

NCR activities are annually documented in an annual programme, annual report and annual budget. The annual programme and budget are approved by the Supervisory board.

Table 1: The composition of NCR Boards in 2023. Persons marked with \* are chair persons.

Person	Partner institution	Email
<b>Programme Secretary</b>		
dr. ir. Koen Berends*	Deltares	<a href="mailto:koen.berends@deltares.nl">koen.berends@deltares.nl</a>
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<b>Supervisory board</b>		
prof. dr. Jaap Kwadijk*	Deltares	<a href="mailto:jaap.kwadijk@deltares.nl">jaap.kwadijk@deltares.nl</a>
prof. dr. Hans Middelkoop	Utrecht University	<a href="mailto:h.middelkoop@uu.nl">h.middelkoop@uu.nl</a>
dr ir. Astrid Blom	Delft University of Technology	<a href="mailto:astrid.blom@tudelft.nl">astrid.blom@tudelft.nl</a>
prof. dr. Ton Hoitink	Wageningen University & Research	<a href="mailto:ton.hoitink@wur.nl">ton.hoitink@wur.nl</a>
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Vacant	Vrije Universiteit Amsterdam	
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dr. Willem Toonen	Vrije Universiteit Amsterdam	<a href="mailto:w.h.j.toonen@vu.nl">w.h.j.toonen@vu.nl</a>
dr. Paolo Scussolini		<a href="mailto:p.scussolini@vu.nl">p.scussolini@vu.nl</a>
dr. Paul Hudson	Leiden University College	<a href="mailto:p.f.hudson@luc.leidenuniv.nl">p.f.hudson@luc.leidenuniv.nl</a>
<b>Young NCR</b>		
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ir. Anna Kusters	Deltares	<a href="mailto:anna.kusters@deltares.nl">anna.kusters@deltares.nl</a>
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Tatiana Edler MSc	Utrecht University	<a href="mailto:t.edler@uu.nl">t.edler@uu.nl</a>
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Vacant	Radboud University Nijmegen	

Table 1: The composition of NCR Boards in 2023. Persons marked with \* are chair persons.

Person	Partner institution	Email
<i>Vacant</i>	Vrije Universiteit Amsterdam	
<i>Vacant</i>	Leiden University College	





Radboud University Nijmegen



Delft University of Technology

**UNIVERSITY OF TWENTE.**

University of Twente



Utrecht University



Vrije University Amsterdam



Wageningen University & Research

**Deltares**

Deltares



Universiteit Leiden